5. ELECTRIC TRANSMISSION GRID ANALYSIS

SB 257 Section 4(2)(i)

- 5. ELECTRIC TRANSMISSION GRID ANALYSIS SB257, Section 2(2)(i) (company contact Scott Yaeger)
- 5.1 Project description and transmission facilities required for interconnection

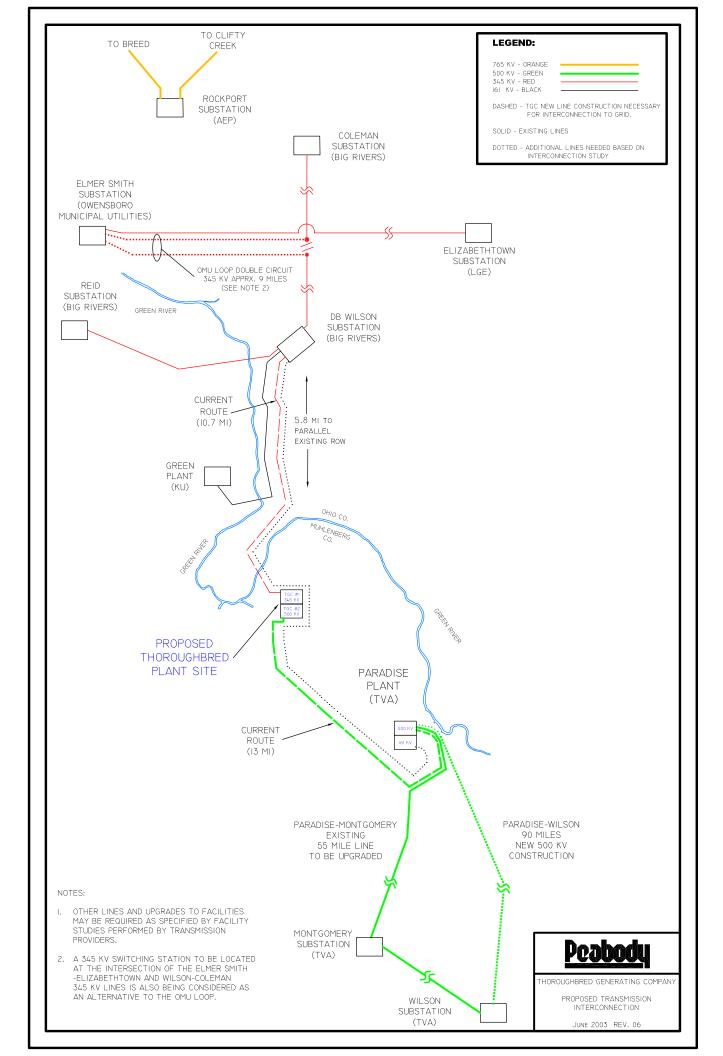
Thoroughbred Generating Company, LLC (TGC) intends to construct the Thoroughbred Generating Station (TGS) in Muhlenberg County, Kentucky. The plant will be comprised of two 750 MW (nominal) generators in a split bus arrangement. One generator will tie to the Big Rivers Electric Corporation (BREC) transmission system through a 345 kV connection. The other generating unit will be tied to the Tennessee Valley Authority (TVA) transmission grid by way of a 500 kV connection. Initially, the two generator connections will be operated electrically independent from each other since no TGS switchyard tie between the 345 kV and 500 kV buses is planned.

Transmission line construction will be necessary to connect the TGS to the electric transmission grid in Kentucky. Thoroughbred proposes to make this electrical interconnection within an approximate 20-mile corridor, which extends to the North and South of the proposed site of TGS. This corridor resides in Ohio and Muhlenberg Counties of Kentucky. This corridor will have the terminal points of D. B. Wilson Power Plant switchyard to the North (Ohio County) nearest Matanzas, Kentucky, which is owned by BREC. The Southern terminal point will be at a location near the Paradise Power Plant (Muhlenberg County), near Drakesboro, Kentucky, which is owned by TVA. The proposed TGS will sit near the mid-point of this corridor.

TGC has created a one-line sketch and it is shown below on the next page entitled "Proposed Transmission Interconnection, June 2003 Rev 06." This sketch highlights the major facilities (new construction) that have been identified by the providers as being required for interconnection. This sketch does not show relaying and terminal work, line upgrades or breaker upgrades, all of which have also been identified.

The majority of these facilities that providers have identified as required for interconnection, would be common to any base-load generation addition in the immediate area of our site. That is to say any project seeking interconnection to BREC or TVA in the vicinity, would likely encounter the need to construct the same facilities and is therefore a good use of common infrastructure. The robust TGS interconnection plan will likely provide additional generation outlet capability beyond TGC needs.







5.2 Request for Interconnection Service and status

TGC submitted applications for Interconnection Service from both BREC and TVA in March of 2001. Since that time, TGC has been actively engaged with both parties to bring about an interconnection plan that meets the needs of TGS and creates an enhancement to the greater system.

Since submitting the BREC application, BREC's interconnection process has led to completion of a Feasibility Study in June of 2001 and facilitated a multiple party Interconnection System Impact Study, which was completed in February 2003. Commonwealth & Associates, Inc. performed the study, while participants included BREC, Louisville Gas and Electric/Kentucky Utilities (LGE), Owensboro Municipal Utilities (OMU), TVA and the Midwest Independent System Operator (MISO). BREC is currently conducting a Facility Study, which will estimate the costs of all facilities required for interconnection. Projected completion date for the Facility Study is July of 2003.

TVA interconnection process initially moved slower because of the backlog of interconnection requests from independent power producers. TVA completed the Interconnection System Impact Study in July of 2002. TVA is currently conducting a Facility Study, which is projected to be completed in December of 2004.

Following the substantial completion of the Facility Study by each respective provider, TGC will negotiate and ultimately execute an Interconnection Agreement with both BREC and TVA for the respective TGS interconnections.

Please note that TGC intends to make application for a Construction Certificate for any merchant electric transmission facilities that it will be required to own and operate under a separate filing. Upon the conclusion of Facility Studies by each provider and sufficient progress on the Interconnection Agreements, detailing contractual requirements for interconnection and location of change in ownership, TGC will make separate application for the merchant electric transmission facilities they will own, if any, as required by Kentucky State law.

5.3 Summary of each study performed to date

A total of five interconnection studies have been performed for TGS. TGC has contracted for two independent interconnection studies to be performed and three other studies have been completed in conjunction with the transmission provider's interconnection process. The complete studies have been included in this application in section 5.4 below, however TGC has given a summary of each study below for convenience.

5.3.1 Summary of Black & Veatch Thoroughbred Site System Impact Study

Black & Veatch was commissioned by Peabody Holding Company to perform a system impact study investigating the effects of interconnecting new generation at the proposed TGS site. This study was initiated when Peabody was evaluating the merits of several potential sites for generation projects. Numerous interconnection configurations were evaluated. Among those investigated is the current interconnection plan. The study utilized traditional single contingency load flow analysis to compare and contrast interconnection configurations based on performance and cost. The study was completed in March of 2001 and Peabody used this study to help them formulate the basis for the proposed interconnection configuration in their application for service to the transmission providers.

5.3.2 Summary of BREC Interconnection Feasibility Study

After making application for Interconnection Service to the BREC system, they performed an initial review of several interconnection options to determine if the interconnection of generation at this point on the system was feasible. They used normal and first contingency analysis to predict overloads on the system and compare various interconnection plans involving 750 and 1500 MW connections. The Interconnection Feasibility Study was completed in June of 2001 and concluded that a couple of the interconnection options had merit and should be studied in more depth in a regional study with input from other utilities in the surrounding area.

5.3.3 Summary of BREC Regional Interconnection System Impact Study

In August of 2001, BREC contracted with Commonwealth & Associates Inc. to perform a full-blown Regional Interconnection System Impact Study with input and review from BREC, LGE, OMU and TVA. MISO became involved in an advisory role in summer of 2002. MISO expanded the list of generators included in the stability portion of the interconnection study, which was their largest concern. The study effort was comprehensive and spanned nearly a two-year period of time with its completion in February of 2003. The scope of the study included traditional load flow, short circuit and stability analysis. Several interconnection options were evaluated. All participants were given ample time to review results and conference calls were held periodically to discuss results and status of the study. This study formed the basis for determining the facilities required for interconnection to the BREC system.

5.3.4 Summary of Navigant Interconnection Study for proposed tie to TVA

Because of TVA's generator interconnection queue, they indicated that they would not begin work on the TGS Interconnection System Impact Study for at least a year from the time of our application. As a result, TGC contracted with

Navigant Consulting, Inc. to perform an interconnection study for the proposed tie to the TVA system. The study scope included normal and contingency load flow analysis to determine the suitability of the proposed interconnection configuration and development of preliminary cost estimates for the facilities that would have to be constructed or upgraded to mitigate the impacts of the TGS interconnection. This study was completed in March of 2002.

5.3.5 Summary of TVA Interconnection System Impact Study

Although TVA received the TGC application for Interconnection Service in March of 2001, TVA was not able to begin our study until spring of 2002 due to other interconnection requests received ahead of TGC in the interconnection queue. Once initiated, TVA rapidly performed a rigorous review of our proposed interconnection and completed the study in July of 2002. Their review included load flow, short circuit and stability analysis. While the study was comprehensive, the attached "study results" (included in Section 5.4.5) are very brief. The contents of the results are limited to a list of direct assign and network upgrade facilities, along with planning accuracy cost estimates for each facility. Section 5.4.5 constitutes all information received from TVA regarding our interconnection request.

5.3.6 Summary of MISO Transmission Expansion Plan 2003

MISO Board of Directors recently approved the MISO Transmission Expansion Plan 2003, which is a comprehensive regional transmission planning effort for the Midwest. A portion of the interconnection and network upgrades facilities, associated with the Thoroughbred project, were identified as having large consumer benefit in one of the exploratory plans identified by MISO, the Rockport to Paradise to Wilson (TN) 500kV project. We have enclosed the executive summary from the MISO Transmission Expansion Plan 2003 for your review.

- 5.4 Interconnection Studies
- 5.4.1 Black & Veatch Initial Interconnection Study (March 2001)

Peabody Holding Company (PHC) Thoroughbred Site System Impact Study Final Report

March 2001



Table of Contents

1.0 Introduction	1-1
2.0 Assumptions	2-1
2.1 General	
2.2 Interconnection Options	
2.3 Reliability Considerations	
3.0 Load Flow Cases and Contingency Analysis	
3.1 Case Descriptions	3-1
3.2 Power Transfer Definitions	3-1
3.3 System Impact Study Results	3-3
4.0 MUST Report Description	4-1
4.1 General	4-1
4.2 Report Interpretation	4-1
5.0 Interconnection and Upgrade Costs	5-1

Appendix A: MUST Results for Thoroughbred Site

1.0 Introduction

Black & Veatch was commissioned by Peabody Holding Company (PHC) to perform a system impact study investigating the effects of interconnecting new generation at the proposed Thoroughbred site. This site is located near the D.B. Wilson plant, owned by West Kentucky Energy, and the Paradise Plant, owned by TVA. Figure 1-1 illustrates the location of the Thoroughbred site with respect to area transmission, state borders and the Wilson and Paradise generating facilities.

Evaluations of interconnection to either the 345 and/or 161 kV Louisville Gas & Electric (LG&E) lines located at the D.B. Wilson plant north of the site, or on either of the 161 kV lines or one 500 kV line located at TVA's Paradise plant south of the site, were conducted. Interconnection to the American Electric Power (AEP) 765 kV transmission system at Rockport, north of the site across the Ohio River in Indiana, and a potential split interconnection for capacity transfers to both north and south market regions were also evaluated.

The injection of power was evaluated at each proposed interconnection point, with simulations of capacity sales to all adjacent regions during normal system conditions and single contingency events. Contingency analyses were performed using the Power Technology Incorporated (PTI) Managing and Utilizing System Transmission (MUST) software.

Assumptions regarding the amount and location of displaced existing generation were developed based on Black & Veatch in-house market clearing price data and available information regarding the condition and performance of existing plants relative to the candidate generation source(s). An in-depth marketing analysis of the surrounding region was not conducted.

Section 2 of the report describes key input assumptions of the study, including a description of the interconnection options and the reliability of those options. The interconnection options are virtually identical from a system impact standpoint, but vary somewhat with respect to reliability.

Section 3 describes the load flow and contingency outage study methodology with listings of study results for various power transfers.

Section 4 provides an explanation of study results and the definitions of terms commonly used in the calculation of the transfer capability of transmission systems. A description of how to interpret the Managing and Utilizing System Transmission (MUST) program output is provided. A full listing of the MUST simulation output for multiple scenarios is included in Appendix A of this report.

Section 5 lists feasibility-level capital costs associated with the addition of transmission lines and substation equipment required for the interconnection of the proposed generation. The costs of upgrading surrounding transmission lines that are affected by the installation of PHC generation are also addressed.

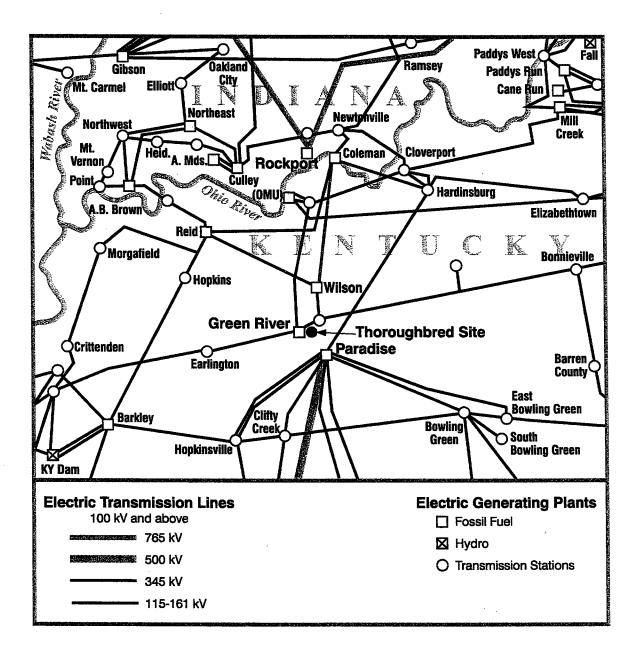


Figure 1-1
Area Transmission System

2.0 Assumptions

2.1 General

100

The following assumptions were applied in the development and modification of load flow cases and interpretation of study results.

- PHC desires to operate the candidate generation at base-load capacity factor without seasonal curtailment of transmission service.
- All transmission lines that are modeled as 3-terminal lines are removed from service for faults on any branch of the 3-terminal line.
- Conductor ratings during heavy summer and winter load flow cases are considered absolute (i.e. any power flow exceeding the thermal rating would require reinforcement of the affected lines or implementation of Remedial Action Schemes (RAS)).
- Transformers overloaded during contingencies to any level above 150 percent of rated capacity require upgrading. Loading above 100 percent, but less that 150 percent is considered acceptable during short-term contingencies.
- Any transmission overload resulting from a Transmission Distribution Factor (TDF) of less than 2 percent was eliminated from the list of upgrade/RAS requirements. A TDF of less than 2 percent indicates that PHC generation does not significantly impact loading of the line.
- When transferring power to the candidate sales areas, generating unit outputs within the areas were reduced uniformly to balance net interchange. Adjustments to area generation based on estimated dispatch scenarios were performed, but the impact of these adjustments to study results proved minimal.
- Only single contingency outages were considered in determining transfer capability. No common mode contingencies, remedial action schemes (RAS), breaker failure, or loss of bus outages were considered.
- Any overload conditions during single contingency outage simulations, which occur with a 1,500 MW PHC capacity injection scenario at a single interconnection point (i.e. not split injection) and can be alleviated by tripping one unit, may be considered optional upgrades. Whether these upgrades are required will depend upon the policies and procedures of the interconnecting utility, PHC commercial constraints, and unit tripping and/or ramp rate capability.

2.2 Interconnection Options

Multiple options were analyzed for interconnection of PHC generation at the Thoroughbred site. Each candidate interconnection option is described in the following paragraphs and illustrated in Figure 2-1. The candidate interconnection options included combinations of the following:

- Single 765 kV interconnection at American Electric Power's Rockport substation via a new 345 kV line from the Thoroughbred generation site. Only a 1,500 MW capacity injection was studied for this interconnection option. Interconnection within the Rockport substation is assumed with two 345 kV 765 kV step-up transformers.
- Interconnection at Big Rivers Electric Cooperative's D.B. Wilson 345 kV substation via a new 345 kV line from the Thoroughbred generation site. Capacity injection of 750 MW was studied for this interconnection option with a simultaneous 750 MW injection at the TVA Paradise 500 kV substation or Paradise 161 kV substation.
- Interconnection at the LG&E Energy Green River 161 kV substation via a new 161 kV line from the Thoroughbred generation site. Capacity injection of 750 MW was studied for this interconnection option with a simultaneous 750 MW injection at the TVA Paradise 500 kV substation or Paradise 161 kV substation.
- Single 500 kV interconnection at the TVA Paradise substation via a new 500 kV line from the Thoroughbred generation site. A 1,500 MW capacity injection was studied for this interconnection option.
- Interconnection at the Paradise 500 kV substation and Paradise 161 kV substation. A capacity injection of 1,500 MW was studied for this interconnection option with a simultaneous 750 MW injection at the 500 kV and 161 kV voltage levels.

49929.0050

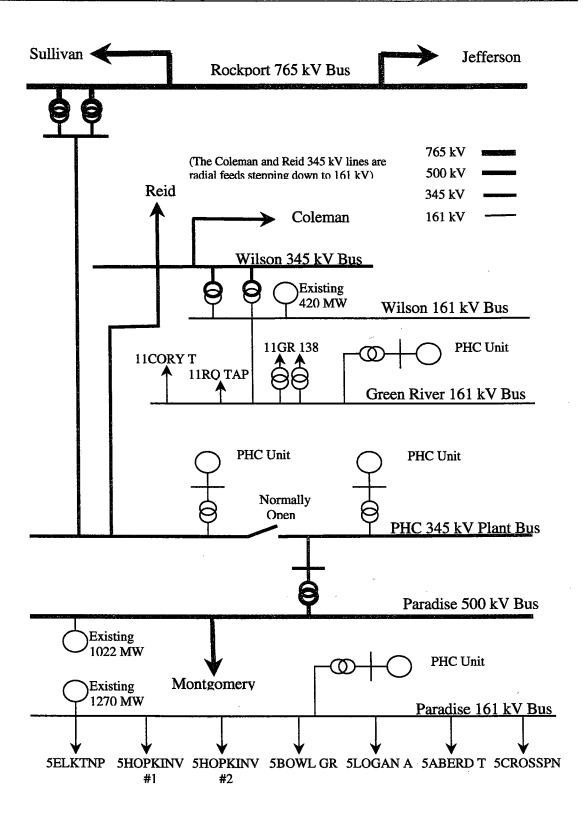


Figure 2-1
Interconnection Options

2.3 Reliability Considerations

All of the interconnection options are similar from an overall reliability perspective. However, if RAS schemes are implemented to alleviate various transmission upgrades, some interconnection options carry more exposure with respect to the number of potential line outages requiring a trip of PHC generation. Table 2-1 lists the approximate number of RAS schemes and the worst-case capacity transfer limitation for each interconnection option, if PHC elects to implement RAS schemes versus upgrading transmission lines.

Scenario 1 – 1,500 MW Injection to Rockport 765 kV 2 1,255 MW Scenario 2 – 1,500 MW Injection Split to Wilson 345 kV and Paradise 500 kV 9 826 MW Scenario 3 – 750 MW Injection to Wilson 345 kV 10 420 MW Scenario 4 – 750 MW Injection to Paradise 500 kV 1 481 MW	ility
Scenario 2 – 1,500 MW Injection Split to Wilson 345 kV and Paradise 500 kV 9 826 MW Scenario 3 – 750 MW Injection to Wilson 345 kV 10 420 MW Scenario 4 – 750 MW Injection to Paradise 500 kV	
9 826 MW Scenario 3 – 750 MW Injection to Wilson 345 kV 10 420 MW Scenario 4 – 750 MW Injection to Paradise 500 kV	
Scenario 3 – 750 MW Injection to Wilson 345 kV 10 420 MW Scenario 4 – 750 MW Injection to Paradise 500 kV	
10 420 MW Scenario 4 – 750 MW Injection to Paradise 500 kV	
Scenario 4 – 750 MW Injection to Paradise 500 kV	
1 481 MW	
Scenario 5 – 1,500 MW Injection Split to Green River 161 kV and Paradise 500	kV
5 860 MW	
Scenario 6 – 750 MW Injection to Green River 161 kV	
5 421 MW	
Scenario 7 – 1,500 MW Injection Split to Green River 161 kV and Paradise 161	kV
6 932 MW	
Scenario 8 – 750 MW Injection to Paradise 161 kV	
2 505 MW	
Scenario 9 – 1,500 MW Injection Split to Wilson 345 kV and Paradise 161 kV	r
10 833 MW	
Scenario 10 – 1,500 MW Injection to Paradise 500 kV	
2 1,356 MW	
Scenario 11 – 1,500 MW Injection Split to Paradise 500 kV and Paradise 161 k	
2 935 MW	: V

3.0 Load Flow Cases and Contingency Analysis

3.1 Case Descriptions

All load flow cases developed for determining system upgrades are listed below with interconnecting substation voltages specified. All system data contained in the individual cases originated from FERC ECAR load flow files simulating summer 2004 and winter 2004 peak demand conditions.

Additional buses and generators were inserted into the summer and winter load flow cases to represent PHC generation. In addition, bus ties were inserted for all generation scenarios with capacity injection at identical voltages. The ties were inserted to assess whether direct connection of the injection points would alleviate any identified system constraints. Results of the analysis indicated that each injection point should remain separate as closing the bus ties resulted in high North-South flow through the system causing additional system overloads.

- Scenario 1 1,500 MW Injection to Rockport 765 kV
- Scenario 2 1,500 MW Injection Split to Wilson 345 kV and Paradise 500 kV
- Scenario 3 750 MW Injection to Wilson 345 kV
- Scenario 4 750 MW Injection to Paradise 500 kV
- Scenario 5 1,500 MW Injection Split to Green River 161 kV and Paradise 500 kV
- Scenario 6 750 MW Injection to Green River 161 kV
- Scenario 7 1,500 MW Injection Split to Green River 161 kV and Paradise 161 kV
- Scenario 8 750 MW Injection to Paradise 161 kV
- Scenario 9 1,500 MW Injection Split to Wilson 345 kV and Paradise 161 kV
- Scenario 10 1,500 MW Injection to Paradise 500 kV
- Scenario 11 1,500 MW Injection Split to Paradise 500 kV and Paradise 161 kV

3.2 Power Transfer Definitions

Corn.

Eleven (11) separate power transfer scenarios were simulated for each load flow case described in Section 3.1. Definitions of the areas and utilities within each area are listed in Table 3-1. Overloads and system constraints associated with each power transfer scenario and capacity injection are listed in Appendix A.

Table 3-1
Power Transfer (Market Area) Definitions

Market Area	Area/Utility Within Market Area
Group 1	AMRN, CPLW
Group 2	BREC, SIGE, IP
Group 3	CIN, LGEE, BREC
Group 4	AEP, EKPC
Group 5	EKPC, DUK
Group 6	DOE, TVA, ENSE, ENCA, ENNA
Group 7	DUK, SERC, TVA
Group 8	BREC, TVA
North Group	AMRN, CPLW, BREC, SIGE, IP, CIN, LGEE, AEP, EKPC
South Group	CPLW, AMRN, DOE, TVA, ENSE, ENCA, ENNA, SERC, DUK, EKPC
All Group	All listed areas/utilities.

Where:

AEP = American Electric Power

AMRN = Ameren

CPLW = City Water Light & Power (Illinois)

DUK = Duke

TVA = Tennessee Valley Authority

DOE = Department of Energy

ENSE = Enron SE Corp. (not used, represents new Enron generation)

ENCE = Enron (not used, represents new Enron generation)

ENNA = Enron North America (not used, represents new Enron generation)

SERC = SERC Equivalent

SIGE = Southern Indiana Gas & Electric

LGEE = Louisville Gas & Electric

BREC = Big Rivers Electric Cooperative

EKPC = East Kentucky Power Cooperative

IP = Indian Power & Light

SIPC = Southern Illinois Power Cooperative

CIN = Cinergy

3.3 System Impact Study Results

Results of the system impact study are listed in Table 3-2 and Table 3-3. Table 3-2 lists all upgrade requirements identified for simulation of the "all" group market area capacity transfer scenario combined with each capacity injection load flow case. Due to the large number of upgrade capital cost estimates required and per PHC's request, cost estimates were not developed for each of the 11 market sales area scenarios.

Specific upgrades required for each capacity injection scenario are listed in Table 3-3. Not all upgrades are required for an "all" group market capacity transfer from each injection point. The number of upgrades required varies with the location and amount of capacity injected. Transformer upgrades were assumed to be required when loading of the transformer exceeded 150 percent of maximum during any contingency.

PHC may elect (with interconnecting utility permission) to invoke Remedial Action Schemes (RAS) versus upgrading various lines and/or transformers in the system. Summary data of Table 3-3 illustrate the reduction in system upgrade costs associated with the implementation of RAS schemes. Elements that are overloaded during contingencies were considered candidates for RAS schemes if the amount of generation reduction required to alleviate the overload was less than 50 percent of the total plant capacity. Transmission lines overloaded less than 1 to 2 percent during contingencies were eliminated from the list of upgrades and included in the RAS list. This is because plant output could be reduced a small amount during the contingency to prevent the overloading of the line.

Estimated three-phase fault values for each substation capacity injection are listed in Table 3-4. Based on the results of the fault analysis, breakers at the Paradise 161 kV substation interconnection may require replacement if single-phase fault values exceed a level of 40 kA. Although single-phase faults values will be higher than the three phase values listed, additional TVA in-house impedance data is required to determine whether the final fault value will exceed 40 kA. Cost associated with the upgrade of these breakers is not included in the total cost of plant interconnection. The estimated cost range for each breaker varies with installation cost, configuration, and whether devices such as preinsertion resistors are required, but can be expected to be \$175,000 to \$250,000 per breaker installed.

Table 3-2
System Upgrade Requirements

Upgrade Number	Affected Element	Estimated Length (Miles)	Upgrade * Type	Cost ** (\$Millions)
1a	161/138 kV Green River Transformer #1	N/A	XFMR	2.25
1b	161/138 kV Green River Transformer #2	N/A	XFMR	2.25
2a	138 kV Green River - Ohio C Line #1	14	1x954	5.08
2b	138 kV Green River - Ohio C Line #2	14	1x954	5.08
3	138 kV Ohio C – Shrews Line	35	1x954	12.68
4	138 kV CLVRPR - GR STL Line	21	1x954	7.61
5	345 kV Hardin – Smith Line	14	3x1272	12.18
6	161 kV Cory T – Cory DO Line	2	1x954	0.99
7	161 kV Morganf – Cory T Line	8	1x954	3.30
8	138 kV Bonnie – Shrews Line	25	1x636	9.06
9	161 kV Earl N - RQ TAP Line	23	1x954	9.49
10	138 kV GR STL - GR RVR Line	54	1x954	19.58
11	161 kV Gallatin – Hartsville Line	12	1x795	4.95
12	161 kV Paradise – Bowlin Green Line	28	2x795	16.17
13	161 kV Paradise – Aberd T Line	15	2x954	8.66
14	161 kV Skilm - Natal Line	14	2 nd Line	6.62
15	161 kV Coleman – Natal Line	4	2 nd Line	3.58
16	161 kV Newtonville - Coleman Line	8	2 nd Line	4.64
17	161 kV Green River - Wilson Line	10	2 nd Line	6.95
18	161 kV Reid - Davis Line	30	2x954	17.33
19	345 kV Wilson – Coleman Line	15	3x1272	17.55
20	138 kV Newtonville - Cloverport Line	27	1x795	9.79
21	161 kV East Bowlin Green - Aberd T Line	25	2x954	14.43
22	500 kV Paradise – Montgomery Line	55	2 nd Line	72.00
23	161 kV Radnor - Grasl T Line	9	2x954	5.20
24	161 kV Oak Pla - Clarksville Line	11	1x636	4.54
25	161 kV Port SS – Fountain Line	4	1x954	1.82
26	345 kV Breed – Casey Line	34	3x954	39.78
27	345 kV Breed – Eugene Line	71	3x954	83.07

^{*} XFMR = Transformer, AxB Reconductor = # of Lines x Conductor Size ACSR

^{**} Does not include licensing, permitting or right of way.

Table 3-3 System Upgrades and Costs (\$millions) With/Without F	RAS
Scenario 1 – 1,500 MW Injection to Rockport 765 kV	
Without RAS – 26, 27	122.9
With RAS - None	0
Scenario 2 – 1,500 MW Injection Split to Wilson 345 kV and Paradise	500 kV
Without RAS – 1A, 1B, 2A, 2B, 3, 4, 5, 10, 14, 15, 16, 17, 18, 19, 20	133.2
With RAS – 1A, 1B, 2A, 2B, 4, 5	34.4
Scenario 3 – 750 MW Injection to Wilson 345 kV	
Without RAS – 1A, 1B, 2A, 2B, 3, 4, 5, 9, 10, 14, 15, 16, 17, 18, 19, 20	142.6
With RAS – 1A, 1B, 2A, 2B, 4, 5	34.4
Scenario 4 – 750 MW Injection to Paradise 500 kV	
Without RAS – 11, 23	10.1
With RAS – 11	5.0
Scenario 5 – 1,500 MW Injection Split to Green River 161 kV and Parac	lise 500 kV
Without RAS – 1A, 1B, 2A, 2B, 3, 4, 5, 6, 7, 8, 9, 10	89.5
With RAS – 1A, 1B, 2A, 2B, 3, 4, 5	47.1
Scenario 6 – 750 MW Injection to Green River 161 kV	
Without RAS – 1A, 1B, 2A, 2B, 3, 4, 5, 6, 7, 8, 9, 10	89.5
With RAS – 1A, 1B, 2A, 2B, 3, 4, 5	47.1
Scenario 7 – 1,500 MW Injection Split to Green River 161 kV and Parac	lise 161 kV
Without RAS – 1A, 1B, 2A, 2B, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 21	128.8
With RAS – 1A, 1B, 2A, 2B, 3, 4, 5, 12, 13	72.0
Scenario 8 – 750 MW Injection to Paradise 161 kV	
Without RAS – 5, 12, 13, 21	51.4
With RAS – 12, 13	24.8
Scenario 9 – 1,500 MW Injection Split to Wilson 345 kV and Paradis	e 161 kV
Without RAS – 1A, 1B, 2A, 2B, 3, 5, 9, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21	154.7
With RAS – 1A, 1B, 2A, 2B, 5, 12, 13	51.7
Scenario 10 – 1,500 MW Injection to Paradise 500 kV	
Without RAS – 11, 22, 23, 24, 25	96.9
With RAS – 11, 22, 23	90.5
Scenario 11 – 1,500 MW Injection Split to Paradise 500 kV and Parad	ise 161 kV
Without RAS – 12, 13, 21, 22	119.7
With RAS – 12, 13	24.8

Table 3-4
Interconnecting Substation Fault Values

Plant Capacity (MW)	Interconnection Point	Faulted Bus	Three-Phase Fault Value (amps)	Breaker Upgrade Required
1500	Rockport 765 kV	22671	8,946	No
750	Wilson 345 kV	27561	10,982	No
750	Paradise 500 kV	18427	11,252	No
750	Green River 161 kV	27028	20,904	No
750	Paradise 161 kV	18012	35,357	Marginal *

^{*} Three-phase fault current approaching 40 kA breaker rating. Rating may be exceeded for a single-phase fault.

4.0 MUST Report Description

4.1 General

The MUST program (Managing and Utilizing System Transmission) created by Power Technologies, Inc. (PTI) was used, in conjunction with PSLF, to perform the impact study. The MUST program calculates the incremental transfer capability between sending and receiving transmission subsystems. In other words, this program analyzes the effect on transmission resources of injecting power at a specific location or area and transferring that power to another area or subsystem defined by the user.

Power transfers from one area to another will flow among several elements of the transmission network and each transmission element will carry a certain portion of the power being transferred, which is the basis for calculating the Transmission Distribution Factor (TDF). For example, if 200 MW is injected at bus A and the line from bus A to bus B has a resultant power flow increase of 20 MW, then the TDF for that line is 0.1 or 10 percent. Typically, for transmission elements that are electrically remote from the power transfer, the TDF may be less than 2 or 3 percent; the resulting overloads or constraints are assumed to be remote to the area being studied, and therefore, they are ignored. For this impact study, the assumed TDF cutoff was 2 percent.

The incremental transfer capability of the transmission network is determined by performing contingency analysis. The MUST program defines this as First Contingency Incremental Transfer Capability (FCITC). This number represents the power, in MW, that can be injected at the candidate site and not cause an overload on a potentially constrained transmission element for a specified contingency. If the reported FCITC is a negative number, then this indicates that there is already an overload situation present without executing a power transfer. Usually, these results are omitted from an impact study since it is assumed that there would be action to upgrade the already constrained transmission. However, in some cases (as in this impact study), it is prudent to consider negative FCITC results for transmission elements that are near the study transfer.

4.2 Report Interpretation

The results of the impact study are provided in Appendix A of this report. The following paragraphs detail the method by which these results are interpreted.

In general terms, the MUST program is based on a linear analysis method which takes a previously solved load flow case and performs the calculations of incremental transfer capability. More specifically, the results reported can be represented with the familiar equation for a line, (y = mx + b). The program reports these results in an Excel spreadsheet under various column headings, which are defined as follows:

- Case study load flow case used for transfer study.
- From bus or area from which power is being transferred.
- To bus or area to which power is being transferred.
- Transfer Level the amount of power being transferred.
- FCITC (First Contingency Incremental Transfer Capability) the maximum amount of power that can be injected without causing a transmission element to overload for a specific contingency. A negative FCITC result indicates that the limiting constraint transmission element is already overloaded before any power transfer occurs.
- TDF this quantity is the Transmission Distribution Factor, which is the percentage of power, as defined by the study power transfer that flows on the limiting constraint transmission element.
- Limiting Constraint description of transmission element that becomes overloaded for a contingency.
- Contingency description of transmission element that is out of service for a power transfer study scenario.
- Preshift the amount of power flowing on the limiting constraint transmission element after the contingency has occurred, but before the power transfer has occurred.
- Limit the power flow limit (thermal) for the limiting constraint transmission element.
- IntBase the amount of power flowing on the limiting constraint transmission element before the contingency has occurred and before the power transfer has occurred.
- FnlBase the amount of power flowing on the limiting constraint transmission element before the contingency has occurred, but after the power transfer has occurred.
- Percent Overload this quantity is not part of the MUST output, but it was created to report the percentage that the limiting constraint transmission element was overloaded when power is injected at the study transfer level.

As previously mentioned, certain output columns represent the (y = mx + b) equation. The y term of the equation is the seasonal thermal rating of the limiting constraint transmission element. The slope (m) is the TDF. The y-intercept (b) is the number that is reported in the PreShift column of the output tables.

An example of the output is presented in Table 4-1. Based on the seventh row of data in the table, it can be determined that for the 8MONTGOM-8DAVIDSO contingency and 5OAK PLA-5CLARKSV limiting constraint, a maximum of 1356.2 MW can be placed at the Paradise 500 kV Substation and transferred to "all areas" without overloading the 5OAK PLA-5CLARKSV line. If 1500 MW is placed at the Paradise 500 kV Substation, then the 5OAK PLA-5CLARKSV line is 3.43 percent overloaded beyond its maximum thermal rating.

Table 4-1
Example MUST Output Summary

FCITC MULTIPLE TRANSFER REPORT	TIPLE T	RAMSE	ER RE	PORT:	W45P000S+P00P61 1500SPLIT.TRA AND W45P000S+UNIT1 1500.TRA	0005+011	[T1_15	00.TRA			
MUST Title:	*** NUST 3,20 *** PRI, FEB 23 2001 10:08 ***	*** TRI,	FEB 23 200	10:08	11						
Title1:	2004 SURE	R PEAK EC	AR BASE CA	2004 SURRER PEAR ECAR BASE CASE (PRC 345 RV	KV TIE OPEN)						
Title2:	#45P000S:	7 AS 0051	T PARADISE	SOO KV AND	##SPOOCS: 1500 MW AT PARADISE 500 KV AND 1500 RW SPLIT ON PARADISE 500 AND 161 KV						
Ronttor File: C	Ronitor File: C:\BV-USERS\NOBODT\Rentucky\PHC.mon	OT Rentuc	ky\PHC.mon								
Contingency File: C:\BV-USERS\NOBODY\Rentucky\PHC.con	C:\BV-USERS\NOBC	DT Rentuc	ky\ PHC.con								
Subsystem File; C:\BY-USERS\NOBODY\Kentucky\PRC.sub	C:\BY-USERS\NOBC	OT Kentuc	ky\PHC.sub								
Exclude File: none	none										
Reporting the first 200 violations per transfer	200 violations	per trans	fer					Service and Selfred Colonocation and Selfred	Maked MA Maked and the	STATE OF STA	AND RESIDENCE
		See See			Control to the second s	1			10		
			1,000 0 1001	11100	0 10701 18408 Chivat 2 141 19070 States. T 161 1 C:1849 SETLS		489.8	450.3 0.	0.01120	399.5 378	378.6 15.814
	0 777 D	0.000	- 226 - 1000T	0.0201	n 28802 18409 BILCHSON SON 18410 SILCRSON 161 1	500 1 1616	757.9	748.4 0.	0.00677	532.9 530.6	.6 6.95
WALL PECTS	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	200	200	0.02010	0. 94170116711 SGREETET 161 19154 SHRISVI 161 1	161 1 2471	91.6	201.5 0.	0.02713	137.9 145	145.9 20.484
	200	0.000		11.00		161 1 1863	-450.8	-461.0 -0.	-0.01120	-365.9	.9 4.67
	֓֜֜֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	1000		.00000		115 99 1115	1012.1	1731.9	1.00000	1671 1.2101	1731.9 45.054
	111	1200.0	Ī			Ī	1012.1	1731.9			45.054
	17T B	0 00	0.67	1.00000,1	O DESCRIPCIE TOTAL 161 1969 SCILBERY 161 1	500 1 1797	-122.0	-179.9 -0.	-0.01530 -	-113.4 -134.1	.1 3.434
		1500.0		-0.02072	-0.02072 -0.34272 8796 SPORT 93 161 19117 SFORMINI 161 1 (C:18711 SGALLATI 161 19154 SEARTSVI 161 1	161 1 2283	-181.9	-223.2 -0.	-0.02042	-134.6 -163.0	.0 1.478
CLOUD TITUM											
	0	0 000	1500 n469 9 f	00100	n 41110 16012 50121019 161 18691 580WL CR 161 1 C:18012 5PARADIS 161 18926 SABERD T 161 1	161 1 1599	386.1	343.6 0.	0.06552	279.7 249.4	. !
	9	200	460 0 463 4.1	0 03405	n 28802 18409 831CERCK SON 18410 531CESCN 161 1	500 1 1616	757.9	748.4 0.	0.00223	532.9 531	531.9 5.494
		0.0001	1300-1	0.06400	O. 27221 12105 CARADITA 161 16256 528ESD T 161 1 C.18012 SPARADIS 161 18691 5808L GR 161 1	1 161 1 1596	361.7	444.5 0.	0.06404	257.4 317	317.3 11.234
		0.000	2000	0.0000	١		279.7	343.6			10.01
	2 77	0.00	0.5	0.00000	0 97324	161 1 1596	-321.1	-446.0 -0.	-0.06404	-216.8 -307.1	1.76
	מווור מ	1900	1200.0 1410.4	0.00019	0.000075 0.5762412002 05 0000 1000 1000 1000 1000 1000 1	138 1 3344	1012.1	1731.9 0.	0.50000 1	1012.1 1731.9	.9 1.74
	HEL B	1500.0	1500.0 1439.7	0.50000			1012.1	1731.9			1.74%
P00P61	ALL B	1500.0	1500.0 1439.7	- 20000:-	18427 SPIRADIS 500 18428 SECRITOR 500 1 BESE CESE						

49929.0050

5.0 Interconnection and Upgrade Costs

Table 5-1 lists all new and upgraded transmission costs and interconnecting point substation costs associated with each capacity injection scenario at the Thoroughbred site. The cost of Thoroughbred on-site substation equipment will be incorporated into unit capital costs and is not included. No reduction in system upgrade costs via RAS options was incorporated in Table 5-1. Table 5-2 shows interconnection and upgrade costs incorporating possible capital cost savings associated with the implementation of RAS.

Table 5-1
Interconnection and Upgrade Costs (\$millions)
(Without RAS Savings)

Scenario	Interconnecting Transmission	Substation	System Upgrades	Total
1	43.2	31.0	122.9	197.1
2	13.5	15.75	133.2	162.45
3	8.1	3.0	142.6	153.7
4	5.4	12.75	10.1	28.25
5	7.9	16.75	89.5	114.15
6	2.5	4.0	89.5	96.0
7	8.5	8.0	128.8	145.3
8	6.0	4.0	51.4	61.4
9	14.1	7.0	154.7	175.8
10	7.2	6.0	96.9	110.1
11	11.4	16.75	119.7	147.85

Scenario 1 – 1,500 MW Injection to Rockport 765 kV

Scenario 2 – 1,500 MW Injection Split to Wilson 345 kV and Paradise 500 kV

Scenario 3 – 750 MW Injection to Wilson 345 kV

Scenario 4 – 750 MW Injection to Paradise 500 kV

Scenario 5 – 1,500 MW Injection Split to Green River 161 kV and Paradise 500 kV

Scenario 6 – 750 MW Injection to Green River 161 kV

Scenario 7 – 1,500 MW Injection Split to Green River 161 kV and Paradise 161 kV

Scenario 8 – 750 MW Injection to Paradise 161 kV

Scenario 9 – 1,500 MW Injection Split to Wilson 345 kV and Paradise 161 kV

Scenario 10 – 1,500 MW Injection to Paradise 500 kV

Scenario 11 – 1,500 MW Injection Split to Paradise 500 kV and Paradise 161 kV

Table 5-2
Interconnection and Upgrade Costs (\$millions)
(With RAS Savings)

Scenario	Interconnecting Transmission	Substation	System Upgrades	Total
1	43.2	31.0	0	74.2
2	13.5	15.75	34.4	63.65
3	8.1	3.0	34.4	45.5
4	5.4	12.75	5.0	23.15
5	7.9	16.75	47.1	71.75
6	2.5	4.0	47.1	53.6
7	8.5	8.0	72.0	88.5
8	6.0	4.0	24.8	34.8
9	14.1	7.0	51.7	72.8
10	7.2	6.0	90.5	103.7
11	11.4	16.75	24.8	52.95

Scenario 1 - 1,500 MW Injection to Rockport 765 kV

Scenario 2 – 1,500 MW Injection Split to Wilson 345 kV and Paradise 500 kV

Scenario 3 – 750 MW Injection to Wilson 345 kV

Scenario 4 - 750 MW Injection to Paradise 500 kV

Scenario 5 – 1,500 MW Injection Split to Green River 161 kV and Paradise 500 kV

Scenario 6 – 750 MW Injection to Green River 161 kV

Scenario 7 – 1,500 MW Injection Split to Green River 161 kV and Paradise 161 kV

Scenario 8 - 750 MW Injection to Paradise 161 kV

Scenario 9 - 1,500 MW Injection Split to Wilson 345 kV and Paradise 161 kV

Scenario 10 – 1,500 MW Injection to Paradise 500 kV

Scenario 11 – 1,500 MW Injection Split to Paradise 500 kV and Paradise 161 kV

Scenario 1

Osse; 2004 SUMMER PEAK ECAR BASE CASE CASE PHCR65_S; 1500 MW FROM PHC 34S TO ROCKPORT 765 LF Case; PHCR65_S.sav; MON; PHC.mon; SUBSYST; PHC, sub; CONT; PHC.con; EXCL. PHC.EXC

18.25 1.000 1.00	50.03	50.03	14.144	6.474	1.674	27.061	166.98	63.60%	30.66%	104.064	102.874	94.364	44.78	42.44	200.00	75.71	53.97%	35.164	3.4.4.7	50.034	50.03	13.934	3.404	,,,,	40.00	19.77	31.75%	40.391	27.061	21.021	98.214	3 374	14.474	\$60.05	\$60.05	3 44%	3.394	2.22	3.281	0.631	2.261	2.654	28.524	4.39%	8.994	50.03	100.00	13.161	1.55%	
18.00 19.14 1.000 1.00	-499.9	-499.8	-423.9	467.7	347.7	-180.5	67.6	-139.6	222.3	44.0	43.4	-50.4		1	, o	90.00	75.1	-166.0		-499.9	-499.8	532.8	185.4		103.3	-128.2	-52.6	24.7	-106.0		94.6	32.3	-418.7	-499.9	-499.8	-341.7	342.0	110.7	352.7	396.7	430.5		155.4	535.8		-499.9	9.66	-398.8	308.8	:
1860 1874 1.0000 1.000		0.0	-206.0	246.1	240.9	-209.4	60.5	-114.9	183.2	20.6	20.2	-2.3			33.1	11.	-22.0	2.6	ì	0.00	0.0	246.1	155.4	;	162.3	179.0	6.69-	14.8	-87.1		-20.7	-19.3	-352.8	0.0	0.0	-312.0	312.2	213.2	240.9	368.3	246.1		168.0	535.2		0,0	0.0	- 206.0	302.6	
1860 1814 1.0000 1.0000 2.1212 2.021	-0.50006	-0.49994	-0.21672	0.17659	0.07528	-0.05779	0.04055	-0,09025	0.08000	0.04511	0.04518	-0.08505			0.03209	-0.09545	0.09481	-0.15258		-0.25788	-0.49994	0.27148	0.02518		0.01351	0.01774	-0.01200	0.02302	-0.03407		0.05958	0.05550	-0.02574	-0.50006	-0.49994	-0.02928	0.02928	-0.01819	0.00.0	0.00605	0.13133		0.02583	0.00926		-0.50006	-0.49994	0.00752	11,000	
180 181 1 1 1 1 1 1 1 1	-999.8	8.666-	-1900.1	1441.9	6'666	-334.7	83.8	-175.7	287.6	74.7	7.4.7	-96.5	83.8	-175.7	83.5	-141.0	0 0 0 0	-234.5		1900.1	0.666	1441.9	283.5		175.5	143.3	0.4/1-	143.3	-114.2	-114.3	66.99	6.99	-440.0	E 6661	8.666-	-439.5	439.8	-269.1	376.5	518.4	1441.9	6.39	189.7	943.5	169.7	8.666-	8,666-	243.5	1.0061-	
1800 1814 1.0 1800 1.0 1	0.0	0.0	-1353,9	964.0	705.5	-357.3		•	245.0	35.0	34.8	-41.2	60.5	-114.9	50.9	-10.3	7.57	F. •	•	-1353.9	9 6	0.0	246.6		212.6	162.6	-176.9	120.1	-96.1	-87.1	-40.0	0.04-	-414.0	V. L. C. C.	0,0	-408.2	408.3	-246.2	352.3	74 B	964.0	-20.7	9.202	941.8	168.0	0.0	0.0	221.0	-1353.9	
1500.0 999.8 -1.00000 1.00000 22671 1500.0	C.Onen 22671 05ROCKPT 765 50020 42A-345B 345 1		765	C:Open 22667 05JERRSO 765 22671 05ROCKPT 765 1	C:Open 22667 05JEFR90 765 22671 05ROCKPT 765 1	345 96162 TTHOMBE	GITTHREE 161 30805 JC FAIR	BILDAN 345 95142 7FRANKS	THOME 345 96354 STHMHIL	MOBERLY 161 31222 MOBERLY	MOBERLY 161 31222 MOBERLY			Base Case	GUTHRIE 161 31239 MOREAU	ELDON 161 96168 SBARNET	LKSIDE 1 138 31024 MARIES	ELDON 151 Stree SERVICE LKSIDE 1 138 31024 MARIES		22671 05ROCKPT	50020 #ZA-345B	SOUZO BAR-3455	138 32394 WINDSOR		14HENDR4	C:Open 22667 05JRPRSO 765 22671 05ROCKPT 765 1	C:Open 26861 10ABBRWN 138 27617 14HENDR4 138 1	C:Open 22667 05JEFRSO 755 226/1 USKUCKFI 755 1	C:Open 26013 dagknimn 138 zello bemiek 128 1		C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 1	C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 2	C:Open 25691 085GROVE 138 25692 085GROVE 345 1	22671	765 50020 #2A-345B 345	345 25736 OBTERMNL 345	345 25736 OSTERMNL 345	27114 11LYNDON 138 27119 11MIDDLT 138	05JEFRSO 765 22671 05ROCKPT 765	05JEFRSO 765 22671 05ROCKPT 765	05JEFRSO 765 226/1 USKUCKF1 /05		oct modulation control	C:Open 22617 05NPROCT 705 23190 USWERCUL 100 -	Giggs Jake		50020 #ZA-345B 345	C:Open 22667 05JEFRSO 765 22671 05ROCKPT 765 1	C:Open 22667 05JERSO 765 12671 05ROCKPT 765 1	Continue and a to
1500.0 999.0 0 1500.0 1500.0 999.0 0 1500.0 999.0 0 1500.0	Lone agent	1.0000 248/1	1.00000 226/1 USKOCKF1 /65 50020 #2A-5458 545	- C - C - C - C - C - C - C - C - C - C	-0.22154 22653 05BREED 345 22663 05EUGENE 345		0.38364 31221 MOBERLY 161 96354 SIAMALL	G.39689 31239 MOREAU 161 31240 MOREAU	-0.06663 30233 CALIF 161 31409 OVEKION	0.22078 31408 OVERION 345 51409 OVERION	0./1235 31221 MORBRED 181 31222 MORBREY 0 70816 11224 MORBREY 161 31222 MORBREY	A CESS SHARES 1100 MARTES 118 96292 SMARIES	31239 MOREAU 161 31240 MOREAU	30233 CALIF 161 31409 OVERTON	0.29106 30026 APCH FLT 161 30027	0.43111 30957 LKSIDE 1 138 31024 MARIES	-0,58645 30532 ELDON 161 31400 08AGE	-0.42795 30957 LKSIDE 1 138 31400 09AGE		0.54737 22653 05BREED 345 22673 055ULLVA 765	1.00000 22671 OSROCKPT 765 50020 #2A-345B 345	1.00000 22671 05ROCKPT 765 50020 #2A-345B 345	-0,34232 22653 05BREED 345 30309 CABEY 345	ort act carry coest off range person affect of	0.42491 26851 10CULLEY 138	-0.02319 25981	-0.40677 26855 10NEWIVE 138 26879	0.01827 26069 08HE FLD 138 26070	0.76899 23464 OSHUNT J 138 26018	0.02522 27195 IIDIXDAM69.0 27295 IIMC-DD	TOOOGO TICANAE 69 0 27260 11FALLS	1.00000 27180 11CANAL 69.0 27260 11FALLS	0.19145 25404 08BUFIN1 138 25405 08BUFIN	0.54737 22653 05BRBED 345 22673	1.00000 22671 05ROCKPT 765	1.00000 22671 05ROCKPT 765 50020 H2A-3458	-0.19463 25576 08M;FUKI 138 25582 08MFTM9 0.19463 25581 08M;FTM9 345 25582 08MFTM9	0.26768 27050 113870 T 138	-0.02370 25939 08WESTWD 345 25991	-0.22154 22653 05BREED 345 22663 05EUGRNE	-0.04128 25949 08SPEED 345 26060 08SPEED	-0.34232 22653		0,07024 22570 05SPORN 345 22987	0.60755 25941 08WHITST 345 27821 16GUION	- 22570 058PORN 345 22987 058PORNA - 22570 058PORNA - 22570 058PORNA 765 50020 82A-345B	1.00000 22871 03NOCKET 765	-0.02352 26030 08BATESV 13B	0.54737 22653	
1500.0 15	TOP.	00000 T-	-1,00000	25.55.0	0.20743		-0.04531	0.0550.0	-0.09110	0.08718	0.07829	75700 0	0.04055	-0.09025	0.04389	-0.16123	0.20856	0.16010	95907.01	-0.54737	-1.00000	-1.00000	0.45252	0.03103	0.02284	0.03190	-0.02260	-0.02315	0.05405	-0.03267	-0.03407	0.11507	-0.02723	-0.54737	-1.00000	-1.00000	0.03094	-0.02182	0.02171	0.21810	0.03125	0.34031	,	0.02727	0.02876	0.02583	-1.00000	0.02228	-0.53078	
				* 0 750	1419.2 •			175.0	274.0	488.4	306.6		576 1	674.3						997.8	9.666	+ 8'666	1056.0 *	1189.5	-1623.6 +	- 606.4	-40.0	221.2	430.5	. 9.555	796.9	928.5	953.7	997.8	* B.666	939.8	1012.6 •	1047.7	1116.5 *	1349.7 *	1393.1 *	1404.2 *	A	-484.9	59.2 *	842.4	B. 666	1011.5	1029.0	
	Towar.	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	0.0001	0.0051	1500.0	1500.0	1500.0	1500.0	1500.0	0.0061	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0051	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	
	From	1500_OR_W45P00	1500 OR W45P00	1500 OK W45F00	1500_OR_W45P00	! !	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_M45F00	1500_OR_W45F00	TEON OF WAShin	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_#45P00	1500 OB 845000	1500 OR W45P00	1500 OR W45P00	1500_OR_H45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_#45P00	1500 OK #45 POO	1500 OR W45P00	1500 OR_W45P00	1500_OR_#45900	1500_OR_W45P00	1500_OR_#45P00	1500_OR_W45200	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR 44500	

Case: 2004 SUMMER PEAK ECAR BASE CASE CASE PHCR65_S: 1500 MW FROM PHC 345 TO ROCKPORT 765 LF Case: PHCR65_S.sav; MON; PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

Carried States

1.924	36.97	86.224	20.141	12.244	32.88%	38.424	34 . 434	344.98%	253.934	9.86%	159.53\$	152.424	31.634	181 048	9.06	5.224	6.254	14 47%	23.931	\$60.03	50:034	3.07	6.74	19.62	6.164	19.804	4.434	15.894	3.24%	4.034	2.524	11.75	*86.0	6.154	4.67	90.0	38.434	17.614	50.03	50.03	13.204	24.214	9.56	2.00	0.38\$	0.234	79.101	28.424	42.73	14.478	50.03	50.03	41.304	7.83%
419.5	107.2	-52.7	92.8	-145.8	-69.5	-52.2	110	2.7	-9.2	-163.3	-23.6	-20.6	-111.1	6.1.6	-110.2	-230.4	121.0	-160.8	31.5	-499.9	-499.8	337.8	120.2	25.2	-150.2	30.7	-176.2	e. e.	-171.2	435.2	342.2	-88	174.3	184.4	8.4	2.	144.7	-128.3	-499.9	-499.8	521.6	208.7	138.3	-258.4	-75.8	-259.2	-74.2	-104.2	-104.3	-420.0	-499.9	-499.B	-43.5	4.77
	114.0	-54.8	2.000	-148.0	-73.2	-60.5	8.66	9 6	5.1	-170.1	B. 6-	S	-71.2	B. 256.	9. 96 -	-208.1	104.4	-114.2	16.4	0.0	0.0	-312.0	2.716	15.7	-113.7	302.6	7.751-	4.1.	-130.6	246.1	240.9	48.0	150.0	-8.1	1.4	10.6	162.3	-128.7	0.0	0.0	246.1	0.6	162.6	-33.6	9.04-	-33.0	-42.5	-76.2	-76.2	-206.0	0.0	0.0	2,3	
	0.00782	0.04906	0.01714	0.01332	0.02251	0.03758	-0.02141	0.03349	-0.03349	0.01532	-0.02788	-0.02788	-0.07208	-0.04011	-0.01714	-0.02362	0.01714	-0.04703	0.01514	-0.50006	-0.49994	-0.02454	0.02454	0.00813	-0,03079	0.00544	-0.03079	0.00561	0.02010	0.14137	0.07331	-0.09756	0.01721	0.13585	0.00488	-0.00561	09600.0	-0.00988	-0.24564	-0.49994	0.25677	0.18074	0.03959	15393	-0.02356	-0.15125	-0.06023	-0,03845	-0.03836	-0.06023	-0.50006	-0.49994	-0.04276	
	143.3	-84.7		-279.9	1.95.1	-94.5	142.0	45.7	-58.7	.279.9	0.65-	.0.65-	-215.7	-440.0	-179.0	-343.8	190.8	-296.9	78.8	9.666-	8.666-	-439.5	8. 86. F	52.6	-249.7	376.5	-276.9	58.7	304.8	1441.9	6.666	-88.0	226.7	214.9	53.0	-58.8	175.5	-176.0	1.0001-	8.666-	1441.9	333.9	363.0	156.3	-141.9	-334.1	-129.9	-154.0	-154.1	1900	8.666-	8.666-	-69.4	
	162.6	-86.9	941.8	-284.0	6.86-	-100.7	158.8	5.56T.	0.7	-291.7	-12.5	-8.3	-175.8	-414.0	-161.7	-313.3	169.2	-208.9	41.3		0.0	-408.2	408.3	16.6	-191.4	352.3	-215.5	0.2	270.3	964.0	705.5	48.0	48.0	-11.8	2.6	9.0	212.6	-176.9	-1353.9	9 9	964.0	107.6	168.2	224.2	-78.8	-84.9	-74.4	-112.6	-112.6	74.4	0.0	0.0	1.6	
CODEN 22667 USUKKSO 765 22671 USKUCKFI 765 I	22667 05JEFRSO 765 22671 05ROCKE	27002 11ALCALD 345 27004	C:Open 25941 08WHITST 345 26180 08HORIVE 345 1	27105 11KENTON 138 29566	27002 11ALCALD 345 27004	27093 11GODDRD 138 27137	29386 20JKSMIT 161 29500 20POWELL	C:Open 11101 BBAD CRK 500 11102 8JOCASSE 500 1	23051 05FULLER 138 23173 05MILLER	27105 11KENTON 138 29566 209PURLK	23051 05FULLER 138 23173 05MILLBR	23051 05FULLER 138 23173	11101 6BAD CRK 500 11102 8JOCASSE	25691 08SGROVE 138 25692 08SGROVE	C:Open 23051 05FULLER 138 23173 05MilleR 138 1	22617 05NPROCT 765 23190 05NPROCT	29432 ZOMAYSVJ 138 29566 ZOSPURLK	27065 11BRWN P 138 27066 11BRHNTI	C:Open 22667 05JEFRSO 765 22671 05ROCKFT 765 1	0SROCKPT 765 50020 #2A-345B 345 1	22671 05ROCKPT 765 50020 #2A-345B	25469 08EBEND 345 25736 08TERMUL	25469 08EBEND	OSMILLBR	27097 11HAEFLI 138 27153	C:Open 22667 05JEFRSO 765 22671 05ROCKPT 765 1	11HASFLI 138 27153 11H LEXN	23051 05FULLER 138 23173	22950 05KENOVA		22667 05JEFRSO 765 22671	C:Open.23115 05BRYAN 138 23116 05LCKWRD 138 1	Mode and access and	C:Open 27005 IIGHENI 345 2/015 IIM DEAN 345 I C:Onen 24067 DSCRAYSB69.0 24077 OSFRANKN69.0 1	23051 05FULLER 138 23173	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	C:Open 26861 10ABBRWN 138 27617 14HENDR4 138 1	26861 10ABBRWN 138 27617 14HENDR4	22667 05JEFRSO 765 22671 05ROCKPT	C:Open 22671 05ROCKPT 765 50020 #28-345B 345 1	765 22671 05ROCKPT	18002 SSHAWNEL 161 18033	18034 SC-31 161 1803S 5C-33	32274 BALDWIN	NON THE	18007 SMARSHAL 161 18406 BMARSHAL	C. C	11192 ALBEMARL 100 11291	11192 ALBEMARL 100 11291 CAKBORO	11087 BADIN 100 11192	C:Open 22667 05JEFRSO 765 22671 USKOURFI 769 1	22671 05ROCKPT 765 50020	11087	TROOL DUNCTION TO THE HEALT WALL THE
-0.34232 22653 OSBREED 345 30309 CASEY 345 1	-0.02319 25981 08GALAGH 230	0.08991 29496 20PITTSB 161 29602 20TYNER	0.60755 25941 08WHITST 345 27821 16GUION 345 1	0.79981 27105 11KENTON 138 29566 20SPURLK	0.07226 27023 11DELVIN 161 27045	-0.41989 27086 11FARM T 138	0.32764 27034 11LR TAP 161 27045	- 11172 SROBBINS 161 18040 SSANTERT 161 1	0.77645 24067 050RAYSB69.0 24077 05FRANK	27105 11KENTON 138 29566	0.48488 24084 05PLYM.G69.0 24091	0.48488 24077 05FRANKN69.0 24084	- 11084 SNANTAHA 161 11172	0.19145 25404 08BUFTN1 138 25405	1.00000 29196 20ARGIM 138 29198 20ARGIM 69.0 1	-0.21118 22950 05KENOVA 138 22997	-0.47949 27105 11KENTON 138 27157 11HEDONI	0.98237 27065 IIBRWN P 138 27067 IIBRWNT2	0.54737 22653 05	1.00000 22671 05ROCKPT 765 50020	1.00000 22671 05ROCKPT 765 50020	-0.19463 25576 08M,FORT 138 25582 08MFTM9	0.19463 25581 08M.FTHS 345 25582 08MFTM9	-0.19124 27093 IlGODDRD 138 27137 IlRODBRN 138 I -0 16749 24025 DELEONKY69 0 29406 2016ON 69.0 1	0.59551 27097 11HAEFLI 138 27149 11VILEY	-0.02370 25939 08WESTWD 345	0.59551 27149 11VILEY 138 27153	-0.29157 24085 05SCIOTI69.0 24087	-0.27346 22997 OSTRISTA 138 23060	0.59551 27097 11HARFLI 138 27153 11W LEXN 138 1	-0.34234 22653 OSBREED 345 22663 OSEUGENE	11095 RJRTOBCV 100 11307 RURAL HL	- 11095 RJRTOBCV 100 11307	0.08457 27092 11	-0.71954 23051 05FULLER 138 29196 ZUARGIM -0.22355 29339 20GRAYSN69.0 29479 20PCTLSJ6	0.29157 24077 05FRANKN69.0	138 1387 138 26879 138 138 138 138 1	-0.40677 26855 10NEWIVL 138 26879 10GRNDVW	0,54737 22653 05BREED 345 22673 05SULLVA	1.00000 22671 05ROCKPT 765 50020 #2A-345B	1,00000 22671 05ROCKPT 765 50020 #2A-345B 345 1	0.60672 18034 5C-31 161 18035 5C-33	0.62779 18002 55HAWNEL 161 18033 5MCCRACK	0.49103 32277 TURKY HL 138 32311 8 BECLVL	0.12373 18035 5C-33 161 33392 JOPPA S	-0.11181 31328 MT VRNON 138 32336 0.12158 18035 SC-33 161 33392		0 47786 11192 ALBEMARL 100 11291	0.47727 11192 ALBEMARL 100 11291	0.75158 11087 BADIN 100 11192 ALBEMARL	0.54737 22653 05BRRED 345	1.00000 226/1 OSKOCKFI (05 50020 #24-545B	TSNOWL TO THE TOTAL OF THE TOTA	TSNSTATION TO BE SEEN TO THE STORY OF
0.33705	0.02245	0.05015	0.02310	0.02558	0.02338	0.02834	-0.05326	-0.07208	-0.13897	0.02627	-0.09375	-0.09375	-0.07208	-0.04150	-0.17422	-0.03230	0.02235	-0.08864	-0.54737	-1.00000	1,00000	-0.02986	0.02986	0.03114	-0.04912	0.02039	-0.04912	0.04522	0.02655	-0.04912	0.21306	-0.09756	-0.09756	0.02522	0.03525	-0.04522	0 0003	-0.02006	-0.54737	-1.00000	-1.00000	0.20476	0.15306	0.02233	-0.16959	-0.04243		-0.10550	-0.05671	-0.10550	-0.54737	-1.00000	00000-1-	
1417.8 •	-861.7	42.8 R	73.8	160.1 R	161.7 R	220.5 R	316.0 R	326.6	427.7	446.3 R	495.3 *	540.8	553.8 *	625.9 *	630.6		968.0 *	992.4 *	• 9.7.6	. B 666	9 8 . 666	1049.5 *	1056.2	1114.2 *	1185.6	1188.8	1251.1	1292.7	1299.4 *	1318.5 *	1381.6	1394.5 *	1394.5	1412.2.*	1428.3 *	1499.9 *	- 2000	-45.0	997.8	9.666	* 8.666	1105.1	1272.6 *	1439.6	1460.7 *	1488.2 *		728 6 *	732.2	839.0	997.8	* 8.666	D . 666	
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0			1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	0.00eT	
GROUP_4B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP SH	GROUP SB	GROUP_5B	GROUP_SB	GROUP_SB	GROUP SB	GROUP 5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP 5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SH	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB		GROUP 68	GROUP_6B	GROUP_6B	GROUP_6B	GROUP, 68	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	! !	GROUP_7B	GROUP 7B	GROUP 78	GROUP 7B	GROUP_78	GROUP_7B	
1500_OR_W45P00	500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45PG0	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_0R_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_#45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR #45200	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR_W45P00	1500_OR_W45P00	1500_OR_W45P00		1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00		1500 OR H45200	1500 OR #45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_#45P00	1500 OK_#45P00	

Case: 2004 SUMMER PEAK ECAR BASE CASE CASE PHCR65_S: 1500 MW/ FROM PHC 345 TO ROCKPORT 765 LF Case: PHCR65_S. 884; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Frid.

Marie Company

11.124	1.271	2.274	918.66	78.264	54.78%	47.89	\$08.89	163.954	21.93%	114.454	39.564	39.47	38.99	47.564	14.934	33.104	31.334	22.71%	4.234	13.301	24.841	15.21	1.421	21.634	9.024	11.884	14.06	15.34%	12.264	3.801	3.214	0.254	34,754	50.034	\$60.03	14.014	5.894	T. 00.1	62.75\$	20.954	20.81%	29.704	14.47	50.034	50.034	22.21	1.07	_
-35.5	341.5		145.8	-128.3	-8.6	-161.3		-			27.8	123.5	123.6	-137.0	65.3	78.0	503.6	12.7	264.0	-160.5	-208.0	-145.1	-377.9	8.88	152.0	-162.2	102.4	100.6	9.96	54.8	1.69-	31.5	107.7	-499.9	-499.8	-425.3	465.8	7.066	-74.2	-104.2	-104,3	0.06-	-422.8	499.9	-499.8	5.61-	141.9	•
23.7	240.9		162.3	-128.7	-0.2	-118.4	138.4	25.2	-184.4	-18.8	27.6	64.1	9.6	19.1	26.6	. i	2.50	18.4	229.0	67.4	-44.3	-53.6	-352.8	9.4.	86.3	-73.6	7.101.		112.9	9.6	34.8	55.4	114.0	0.0	0.0	-206.0	246.1	240.9	-42.5	-76.2	-76.2	-42.5	-206.0		0.	246.1		
-0.04275	0.06996		0.04092	-0.04228	-0.02848	-0.12032	0.12032	0.28638	-0.05464	0.14512	0.00021	0.07163	0.07163	-0.15192	0.01797	0.02032	-0.12032	-0.00503	0.03050	-0,08109	-0.14126	-0.07648	-0.02073	0.07598	0.05341	-0.07163	-0.06286	00.10.0	26761.0	-0.13134	-0.07093	-0.01596	0 00660	-0.50006	-0.49994	-0.21747	0.17255	0.07745	-0.05215	-0.03326	-0.03318	-0.05215	-0.21733	-0.50006	-0.49994	0.19222	60.60.0	0.06982
-68.9	6.666	-129.9	175.5	-176.0	-141.5	-223.5	223.6	226.7	-245.9	148.4	64.2	140.4	140.6	-264.2	70.2	9.69	-255.4	0. 44	309.6	-236.0	-249.8	-191.7	-440.0	224.0	177.2	-183.6	-248.9	4.4.4	2.4.5	0.502-	-142.7	50.9	143 3	8.666-	8.666-	-1900.1	1441.9	999.9	-129.9	-154.0	-154.1	-163.0	-1900.1	8.666-	8.666-	1441.9	F . 69 -	6.666
23.1	705.5	-42.5	212.6	-176.9	-122.5	-175.4	175.4	82.1	-218.8	28.5	35,4	71.8	71.4	9.1	46.3	13.4	-112.2	6'97	246.8	-134.6	-39.1	-76.8	-414.0	4.5	104.1	-81.4	-122.3) 1	1.44.1	102.8	41.7	89.4	7 531	0.0	0.0	-1353.9	964.0	705.5	-74.4	-112.6	-112.6	-74.4	-1353.9	0.0	0.0	0	9.1 . 66	705.5
C:Open 11087 BADIN 100 11088 HIGH RCK 100 99	SS	Base Case	1 8F1 PRUMPAL TIPES AFT MANAGEMENT 19835 mano. 7	27617 14HENDR4 138	25948 D8GIBSON 345 26081 D8GIB 138	26851	26851	26861 10ABBRWN 138	26170	C:Open 26861 10ABBRWN 138 27617 14HENDR4 138 1	C:Open 26856 10NE 138 26877 10ELLIOT 138 1	C:Open 27004 11BRWN N 345 27006 11HARDW 345 1	345 27006 11HARDN	27552	26851 10CULLEY 138 26879	26856 10NE 138 26877 10ELLIOT	26851 10CULLEY 138 26879 10GRNDVW		TJUMBERIO	MORANTE COLICE SAC MORANTE SCOCE	2005 IDNEWTY: 138 26657 10NEWTY:	27022 11CRITTE 161 27033	25691 089GROVE 138 25692	26857 10NEWTVL 161	C:Open 27029 11GRAHVL 161 27043 11S PADU 161 1	11BRWN N 345	26078 0BOKIND 138	27561 14WILSO7 345	26857 10NEWTVL 161	26857 10NEWIVL 161	C:Open 27035 limokdnF lai 2/255 limokonFe3.0 l	26855 10NEWTVL 138		2266/ USUSERSO /83 ZZ6/I USKOCKEI	05R0CKPT 765 50020 #2A-345B	22667 05JEFRSO 765 22671 05ROCKPT	22667 05JEFRSO 765 22671	C:Open 22667 05JEFRSO 765 22671 05ROCKPT 765 1	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	11192 ALBEMARE 100 11291 OAKBORO 100	11192	11087	C; Open 22667 05JEFRSO 765 22671 05ROCKPT 765 1	22671 OSROCKPT 765 50020 #2A-345B	22671 DSROCKPT 765 50020 #2A-345B	22667 05JEFRSO 765 22671 05ROCKPT 765 1	BADIN 100 11088 HIGH RCK 100	C:Open 22667 05JEPRSO 765 22671 05ROCKPT 765 1
-0 49997 11088 HIGH RCK 100 11226 ENRG U32 100 1		- 11087 BADIN 100 11192 ALBEMARE 100		OCT TOWNS OF THE SECOND TOWNS OF THE SECOND	-0.65625 26078 080KLND 138	-0.35118 27560 14HENDRS 161 27617 14HENDR4 138	0.35118 26861 10ABBRWN 138 27617 14HENDR4	0.48035 26857 10NEWIVE 161 27552 14COLE 5 161	0.03478 26079 OBPRNCTN 138 26081	0.39931 26855 10NEWIVE 138			0.09478 27135 11POND C 138 27144	-0.39827 27558 14SKILMS 161 27616 14N.HAR5 161 1	0,12120 26874 10DUBOIS69.0 26886 10NEWIVI		-0.35118 27551 14REID 5 161	0.30117 18026 SBARKLEY 161 27619 14HOPCOS		MANAGE CALLS OF THE MALE SOLD STORY	TOURS AND A PARK SID IN A STATE AND A STAT	10.27.994 2885/ LONGHAND 101 2505/ 00000 0	0 19145 25404 08BUFTN1 138 25405 08BUFTN1	0.35845 27615 14N.HAR4 138 27616 14N.HAR5	0.14836 18020 50	-0.09478 27106 1	-0.28044 26904 10CATO_T 138	-0.30117 27551 14REID 5 161 27619 14HOPCO5	0.39827 27558 148KILMS 161	-0,39827 27552 14COLE 5 161 27564	'	0.61372 26855 10NEWIVE 138		-0.02319 25981 08GALAGH 230 26065	1,00000 22671 05ROCKPT 765 50020 82A-3458 345	1.00000 226/1 OSCOCKFI (45 30020 124-24)	-0.34232 22653 05BREED 345		2 OF THE ATHEMARE 100 2	0./5156 ilde, balla ild ille Allian id	0.4//00 LILS ALBEMANI 100 11291 OAKBORO 100	0 75758 11087 WADIN 100 11192 AUBENARL 100	0 5427 22653 05RREED 345 22673 05SULLVA	1.00000 22671 05ROCKPT 765 50020 #2A-3458 345	1.00000 22671 05ROCKPT 765 50020 #2A-345B 345	-0.34232 22653 05BREED 345 30309	-0.50003 11254 HENG SPG 100 11267 LINDENST 100 1	-0 22154 22651 OSBREED
-0.05644	0.20470	-0,06023		10.60.0	-0.06434	-0.13469	0.13469	0.34418	-0.05402	0.19316	0.03613	0.08268	0.08268	-0,26597	0.02292	0.05286	-0.13469	0.21390	-0.05439	0.03/2/	-0.09004	-0.18184	0.000	0.17864	0.05939	-0.08268	-0.10210	-0.21390	0.26597	-0.26597	-0.04943	-0.12599		0.02033	-1.00000	-0.00000	0.37523	0.20862		-0.09134	11680.0-	46.000	-0.54727	-1.00000	-1.00000	0.39863	-0.05761	0 20240
1384 5 0	1438.1	1451.9		B. 704-	295.5	156.6	357.7	420.2	502.1 *	621.0 *	* 5.767	829.5 *	837.2 *	1027.5 *	1041.4 *	1062.0 *	1063.0	1112.4	1144.9	1148.4	1148.5	6.BSII	1207 9 *	1228.8	1230.7	1236.8 +	1240.1	1325.9 *	1347.4	1378.6 •	1426.3	1494.5 8		-951.4	* 8.666	97.666	1273.6 *	1411.1 *		607.7	4.2.4	0.000	11.000	8.566	4 8 6 6 6	1198.8	1233.5 *	
10050				0.00ct E8								-	-			_aB 1500.0	•	-	••			1500.0					89 1500.0	1500.0		-		-8B 1500.0		•		NB 1500.0						0,0021		1500.0				
		O GROUP_7B		-	OROUF AB												30 GROUP_8B					od GROUP_8B	-									DD GROUP_8B				00 GROUP_NB										OU GROUP SB		
TECO OF WASHING	O O O O O	1500_OR_W45P00		1500_OK_W45P00	1500 OR W45000	1500 OF W45B00	1500 OR W45P00	1500 OR W45500	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_H45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_#45P00	1500 OR #45P00	1500_OR_#45P00	TOO ON WASHOU	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_#45P00	1500_OR_W45P00	1500_OR_W45P0D		1500_OR_W45P00	1500_OR_H45P00	1500_OR_W45P00	1500 OR WASPIN	1500_OR_W45P00		1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_#45P00 1500_OR_#45P00	1500_OR_#45900	1500_OR_W45P00	SOU OF WASPO	DOLCK WO DOCT

Case: 2004 VINNTER PEAK EGAR BASE CASE
CASE PHCR65_W: 1500 MAV FROM PHC 345 TO ROCKPORT 765
LF Case: PHCR65_W: 8av; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Canada Canada

PHCR65 W+PHCR65.TRA

FCTTC MULTITIBLE TRANSFER REPORT: PH MUST Title: ... MGST 3.20 ... THU, 3M 11 2021 9.21 ...

TITLE: 2024 HINTER FEAK SCAR BASE CASE
TITLE: 2024 HINTER FEAK SCAR BASE CASE
TITLE: CASE PROSENS PRIC. mon
Contingency File: C. NOV-USERS/NOSDOVY PRIC. con
Subeyveen File: C. NOV-USERS/NOSDOVY PRIC. con
Subeyveen File: C. NOV-USERS/NOSDOVY PRIC. con

Reporting the first 200 violations per transfer

	Transfer (1997)	5st	Î	10.747.78000 EVENTS 1.1 11.111.111.1111.1111.1111.1111.11	A STATE OF THE STA	State Productive	frate	Prine : their	Base Fra	Base	70
1500_OR_W45P00		* 8.666 0.0021	-1.00000	22671 05ROCKPT 765 50	C:Open 22671 05ROCKPT 765 50020 #2A-345B 345 2	0.0	8.666-	~0.5000	0.0		\$0.03
1500_OR_W45P00				05ROCKPT 765 50020 #2A-345B 345	C:Open 22671 05ROCKPT 765 50020 #2A-345B 345 1	0.0	8.666-	_	0.		50.034
1500_OR_W45P00		1500.0 1311.3 *	-0.54304	0.54737 22653 05BREED 345 22673 05SULLVA 765 2	C:Open 22667 05JEFRSO 765 21671 05ROCKPT 765 1	-1354.1	-2066.1	-0.21674	-216.4	9.005	5
1500 OR #45P00	GROUP 18	. 6 954- 0 0051	-0.04372	0.38383 31221 MOBERLY 161 96354 STHMHIL 161 1	C; Open 96150 7MCCRED 345 96162 7THOMHL 345 1	-354.7	-334.7	-0.05488	-222.1		25.57
1500 OR W45P00			Ċ	FRKN 138	138 30650	-305,0	-286.2	-	156.4		30.594
1500 OR W45P00					PRKN 138 30650	-305.0	-286.2		156.4	•	30.05
1500_OR_W45P00	•	.500.0 -196.1 *	0.06864	MOBERLY 161 31222 MOBERLY	MOBERLY 161 31222 MOBERLY	88.5	75.0	0.04042	52.1	44.2	153.285
1500_OR_W45P00		•		MOBERLY 161 31222 MOBERLY (MOBERLY 161 31222	87.9	75.0	0.03960	0.10		410.001
1500_OR_W45P00				MARIES 138 96292 SMARIES 161	RIVMIN 1 138 31933 WALLEN 1	0.59.	7.56-	-0.07889	188.6		35,314
1500_OR_W45P00				OVERTON 345 31409 OVERTON 161	345 96354	4.45.4	6 F 8	0.06423	38.86	-	103.304
1500_OR_W45P00			0.08071	MOREAU 161 31240 MOREAU 69.0	C:Open 30677 GUTHRIE 161 30805 JC FAIR 69.0		6.56				50.311
1500_OR_W45P00			0.04042	MOBERLY 161 31222 MOBERLY	Base Case	118.1	-243.0	-0.08788	119.9	-208.8	24 77%
1500 OR #45P00					161 96814 SGRAVOI	-25.7	-143.0		-26.7	-122.3	32:101
1500 OR #45P00	,	1500.0 1077.9	-0.10880	31400 OSAGE	7FRANKS 345 96292 SMARIES 161	99 22.6	181.1	0.13339	-7.2		106.00
1500 08: 845500	GROOF IB 150			APCH FLT 161 30027 APCH FLT	161 96751 SMCBAIN	18.1	83.9	0.04471	17.7	82.5	2.79%
DOJECT NO DOET											
1500 OR W45P00	GROUP_2B 150	1500.0 999.8 *	-1.00000	OSROCKPI 765	05ROCKPT 765 50020 #2A-345B	0.0	B. 666 -	-0.50000	0 0	-499.9	50.035
1500_OR_W45P00				OSROCKPT 765	C:Open 22671 05ROCKPT 765 50020 #2A-3458 345 I	0.0	8.666.	•	216.4		5.281
1500_OR_W45P00		1500.0 1300.9 *	-0.54737	0.54737 22653 05BRBED 345 22673 05SULLVA 76S 2	CiOpen 22667 05JEFRSO 765 22671 05ROCKF1 765 1	111671					:
				BEL MININGOOD OCCUPANTAMINA STREET STREET	1 951 14HENDR4 138 1	188.6	176.0	0.01337	143.4	136.0	26.878
1500 OR W45 P00		ï		37305	C:Open 27065 118RWN P 138 27150 11W CLIF 138 1	141.2	141.8	0.01361	72.2	72.5	27,621
1500_OR_W45P00		1500.0 23.2	0.02651	10NEWTVI. 138	26861 10ABBRWN 138 27617	-161.1	-175.6	-0.01354 -	.117.8		11.30%
1500 OR #45P00	GROUP TE GROUP			11CANAL 69.0	27180 IICANAL 69.0 27260	-32.0	6.99	0.07201	-16.6		164.014
1500 08 845900				30 11CANAL 69.0 27260	C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 2	-32.0	6.99	0.06708	-15.4	-	164.014
1500 OR W45P00			,	Z	C:Open 22671 05ROCKPT 765 50020 #2A-345B 345 1	0.0	B.666-	-0.50000	0.0		20.03
1500 OR W45P00			-1.00000	1.00000 22671 05ROCKPT 765 50020 #2A-345B 345 1	C:Open 22671 05ROCKPT 765 50020 #2A-345B 345 2	0.0	8.666-	0.0005.0-	9 9	4.66	10.00
1500 OR W45P00		1500.0 1129.7 *	-0.02450	0.01828 26069 08HE FLD 138 26070 08MTABOR 138 1	C:Open 22667 05JEFRSO 765 22671 05ROCKPT 765 1	6.39	- 94 0	-0.01331	6.87		76.64%
1500 OR W45P00		1500.0 1158.7	0.07201	- 27180 11CANAL 69.0 27260 11FALL9 69.0 2		9.6	9.0	31550 0-	9.69°	.377.9	1.601
1500_OR_W45P00		1500.0 1214.8 *	-0.02456	08BUFTN1 138 25405	C:Open 25691 085GROVE 138 25692 085GROVE 345 1	7.014-	9.99		:		27.38%
1500_OR_W45P00	,,		0.06708	11CANAL 69.0 27260		1.61.	- 2066.1	-0.21200	.216.4	-492.2	5 . 28 k
1500_OR_W45P00		1500.0 1300.9 *	-0.54737	05BREED 345 22673		103.6	8.88.		12.9	49.9	6.90t
1500_OR_W45P00	-		0.06549	05HUNT J 138 26018	Zeols deganimu 138 Zeilo demien	8.25	148.8	0.02846	-37.9	3.8	1.504
1500 OR M45P00	GROUP_3B 150		0.06549	OBHNINGT 138 26134 OBHUNTRF	DEGRITHM 138 25110 USMIEN	-392.7	-439.4	Ċ	0.606.	-347.2	0.07
1500_OR_W45P00	•		•	08M.FORT 138 25582	25736 OBIERWAL	392.8	439.8		303.1	347.5	100.0
1500_OR_W45P00	GROUP_3B 150	1500.0 1499.1 *	0.03133	0.19467 25581 08M.FTHS 345 25582 08MF1M9 138 L	ne ce cui diagram						
	•		0 0	0 60827 18422 B.TVILLE 500 18430 8DBVIDSO 500 1	C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 1	1831.7	1731.3		835.0	783.3	7.87
1500 OK W45200	GKOOP 45	1500.0 -3037.4		SBULL RU 500 18468 SVOLUNTE	C:Open 18457 84BNP 1 500 18468 8VOLUNTE 500 1	1810.6	1724.0		1264.6		200.05
1500 OR W45P00			'		24686 OSRICHCT69.0 24690	82.0	77.2	-0.02012	27.5		50.614
1500 OR W45P00			•	1.00000 24686 OSRICHCT69.0 24690 OSNWHTH 69.0 1	24686 05RICHCT69.0	82.0	9 0 5	0.02519	159.7	175.2	11.18%
1500_OR_W45P00			0.02664	05SPORN 345		0.0	8.666-	-0.50000	0.0	-499.9	50.03%
1500_OR_W45P00		1500.0 999.8 *	-1.00000	05ROCKPT 765 50020	226/1 USROCKE1 /82	0.0	8.666-	-0.50000	0.0	6.664-	50.034
1500 OR W45P00	•		-1.00000	05ROCKPT 765 50020	CEL TANCONET TANA	-1354.1	-2066.1	-0.18797	-216.4	-468.4	4.114
1500_OR_W45P00	-	1500.0 1340.3 *	-0.53127	0.54737 22653 05BREED 345 22673 058ULDVA 765 2						•	-
	•	* 2 8826. 0 003	0.02153	-0.35537 18468 BVOLUNTE 500 18469 SVOLUNTE 161 1		1214.1	1132.6		793.9	724.6	10.054
1500_OR_W45P00	GROUP_SB 450		0.02453	64 8BULL RU 500 18468 BVOLUNTE 500	SWBNP 1 500 18468 BVOLUNTE	1810.6	1724.0		1254.6	780.7	195.6
TROO OK MARKO			0.04345	SJVILLE 500	, 500 18430 BDAVIDSO	1631.7	1731.3	0.02352	3 150	220.1	26.06%
1500 OR #45900			0.02841	11BLUE L 161 29248 20BLIT C	27005 11GHENT 345 27015 11M LEXN	259.8	239.9		-116.7	-114.6	24.261
1500 OF WASPOO			-0.02980	-0.51971 27075 11CARROL 138 24953 06CLIFTY 138 1	27092 11GHENT 138 27123	-191.9			166.4	165.3	56.134
1500 OR W45P00			2 -0.07494	23 11DELVIN 161 29348 20GRNHLJ	11ARNOLD 161 27023 11DELVIN	1.661	154.0		-141.4	-137.9	72.531
1500 OR W45P00	GROUP_SB		0.08206	161 2921S 20BTYVL	11LR TAP 138 29387	-281.7	-280.0		-164.4	-163.3	18.584
1500 OR W45P00				05 11KENTON 138 29566	C:Open 27105 11KENTON 138 29566 20SFURLK 138 2	237.6	239.9				14.674
1500_OR_W45P00	.,		٠		Base Case C.Opsh 29386 20JKSMIT 161 29500 20POWELL 161 1	-206.8	-199.5	0.03462	-117.1	-113.5	47.634
1500_OR_N45200	GROUP_5B 150	1500.0 106.3 R	1 0.06822	-0.32954 27023 IIDELVIN 161							

St. St. St. St.

Carl Control Carlo Carlo

Case: 2004 WINTER PEAK ECAR BASE CASE
CASE PHCR65_W: 1500 MW FROM PHC 345 TO ROCKPORT 765
LF Case: PHCR65_W say; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

10 B	51.551	60.224	60.224	47.74	\$05.96	92.74%	10.554	15.641	14.934	12.39\$	9.351	50.034	50.034	4.82	18.25%	4.55	50.031	\$0.03	11.191	18.601	18.601	11.011	1.40%	5.284
	122.4	-166.5	166.5	23.9		93.1	234.3	-176.5	-227.4	-130.4	263.4	-499.9	499.9	-501.5	225.9	1205.0	-499.9	-499.9	-104.3	-98.2	-98.2	-104.3	186.6	-501.7
totesse	87.2	-106.5	106.5	23.8		-7.0	-178.1	- 95.4	-53.6	-38.8	46.4	0.0	0.0	-216.4	237.6	1264.6	0.0	0.0	-68.4	-41.9	-41.9	-68	183.2	-216.4
Prine Interes	0.07150	-0.12032	0.12032	0.00021		0.14518	-0.05462	-0.07150	-0.14123	-0.07150	0.16037	-0.50000	-0.50000	-0.21664	0.01818	-0.07572	-0.50000	-0.50000	0.03171	-0.04970	-0.04970	-0.03165	0.00275	-0.21929
tinit	142.5	-224.0	224.0	63.4	242.2	168.8	-245.6	-185.3	-249.7	-140.3	334.9	8.666-	8.666-	-2066.1	239.9	1724.0	8.666-	-999.6	-154.1	-172.0	-172.0	-154.2	470.5	-2066.1
tabn Ereshift	106.5	-156.9	156.9	39.5	46.3	35.5	-188.9	-95.4	9.64-	-38.8	45.6	0.0	0.0	-1354.1	253.0	1810.6	0.0	0.0	-101.1	-73.4	13.4	-101.0	437.5	-1354.1
on Company Com	C:Open 27005 11GHENT 345 27015 11W LEXN 345 1	C:Open 26851 10CULLEY 138 26879 10GRNDVH 138 1	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	C:Open 26856 10NE 138 26877 10ELLIOT 138 1	Base Case	C:Open 26861 10ABBRWN 138 27617 14HENDR4 138 1	C:Open 30009 ALBION R 138 30010 ALBION 138 1	C:Open 27551 14REID 5 161 27619 14HOPCO5 161 1	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	C:Open 27551 14REID 5 161 27619 14HOPCO5 161 1	C:Open 27561 14WILSO7 345 27562 14REID 7 345 1	C+Open 22671 05ROCKPT 765 50020 #2A-345B 345 2	C:Open 22671 05ROCKPT 765 50020 #28-345B 345 1	C:Open 22667 05JEFRSO 765 22671 05ROCKPT 765 1	C:Open 18027 SSUMMER 161 27036 11PADDYS 161 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	C:Open 22671 05R0CXPT 765 50020 #2A-345B 345 1	C:Open 22671 05ROCKPT 765 50020 #2A-345B 345 2	C:Open 11192 ALBEMARL 100 11291 OAKBORO 100 I	C:Open 11087 BADIN 100 11192 ALBEMARL 100 2	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	C;Open 11192 ALBEMARL 100 11291 CAKBORO 100 2	C:Open 27004 118RWN N 345 27015 11# LEXN 345 1	C:Open 22667 05JBFRSO 765 22671 05ROCKPT 765 1
noor	0.02809 27135 11POND C 138 27144 11TIPTOP 138 1	-0.35116 27560 14HENDR5 161 27617 14HENDR4 138 1	0.35116 26861 10ABBRWN 138 27617 14HENDR4 138 1	-0.52512 26877 10ELLIOT 138 26878 10ELLIOT69.0 1	26857 IONENTVL 161 27552 14COLE 5 161 1	0.39931 26855 10NEWTVL 138 26857 10NEWTVL 161 1	-0,05090 26079 08PRNCTN 138 26081 08GIB 138 1	0.04840 27106 11KNOB C 138 27121 11MILL C 138 1	-0.13951 26857 10NEWTVL 161 25094 07TASWL1 161 1	0,04840 27079 11CLVRPR 138 27144 11TIPTOP 138 1	0.30128 18026 SBARKLEY 161 27619 14HOPCOS 161 1	1.00000 22671 05ROCKPT 765 50020 #2A-345B 345 1	1.00000 22671 05ROCKPT 765 50020 #2A-345B 345 2	0.54737 22653 05BRRED 345 22673 05BULLVA 765 2	-0.13865 27019 11BEUE L 161 29248 208LIT C 161 1	0.75412 18464 BBULL RU 500 18468 BVOLUNTE 500 1	1.00000 22671 0SROCKPT 765 50020 #2A-345B 345 2	1.00000 22671 05ROCKPT 765 50020 #2A-345B 345 1	0.47769 11192 ALBEMARL 100 11291 OAKBORO 100 2	0.75158 11087 BADIN 100 11192 ALBEMARE 100 1	0,75158 11087 BADIN 100 11192 ALBEMARL 100 2	0.47728 11192 ALBEMARL 100 11291 OAKHORO 100 1	-0.51651 27015 11W LEXN 345 27153 11W LEXN 138 1	USBREED 345
ē	0.07297	-0.13466	0.13466	0.03611	0,28641 -	0.19323	-0.05508	-0.07926	-0.13826	-0.07926	0.21375	-1.00000	-1.00000	-0.54112	0.02045	-0,10998	-1,00000	-1.00000	-0.04683	-0.08706	-0.08706	-0,04679	0.02640	-0.54737
5e12	492.4 *	498.5	498.6 +	• 6.099	683.8	* 8.689	1029.5 *	1134.8 •	1230.5 *	1281.2 *	1353.5 +	* 8.666	* 8.666	1315.9 *	-642.0 *	786.8 R	* B.666	* B.666	1132.4 •	1133.2 •	1133.2 •	1135.8 *	1246.7 *	1300.9 +
Transfer	7	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0
22	GROUP 8B	GROUP AB	GROUP 8B	GROUP 8B	GROUP 8B	GROUP BB	GROUP 8B	GROUP BB	GROUP_8B	GROUP_BB	GROUP 8B	GROUP NB	GROUP NB	GROUP_NB	GROUP SB	GROUP SB	GROUP SB	GROUP_SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP_SB
Prod.	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45200	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR #45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR #45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR_W45P00

Scenario 2

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case: W4SP00OS, sav; MON; PHC, mon; SUBSYST; PHC, sub; CONT; PHC, con; EXCL; PHC, EXC

Land Company Company

FCITC MULTIPLE TRANSFER REPORT: W45P000S+PHCR65.TRA

Title: ... HUST 3.20 ... HED. JAM 10 201 15:12 ...
Title: 2004 SUPWER PEAK ECAR HASE CARE (FHC 145 KV TIE OFEN)
Title: 445POOS. 1500 MW SPLIT BETWEEN WILGON 145 & PARADISE 500
Monitor File: C.NBV-USERS/NOSDOY/PHC.con
Subsystem File: C.NBV-USERS/NOSDOY/PHC.con
Subsystem File: C.NBV-USERS/NOSDOY/PHC.con

Reporting the first 200 violations per transfer

								AND REAL PROPERTY CONTRACTORS	CONTRACTOR AND ADDRESS OF THE PARTY OF THE P	Control of the Contro			
	OR_W45P00	ALL B	1500.0	21.5 R	0.04164	0.40677 26855 10NEWIVL 138 26879 10GRNDVW 138 1	14 138 1	-176.9	-176.0	0.02053	-128.7	-128.3	34,984
	OR_#45P00	ACL_B	1500.0	51.7 R	-0.02059	0.16225 26851 10CULLEY 138 26879 10GRNDVW 138 1	138 1	176.6	175.5	-0.01997	162.3	161.2	16.97
No. 10.00 No.	OR WASPOO	ALL B	1500.0	431.8 *	0.09163	0,77504 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV	/R 138 1	17.1		0.05170	43.5	65.8	83.841
March 1866 1867 1869	OR WASPOO	ALL B	1500.0	433.1 *	0.09155	0.77439 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161	/R 138 2	77.0		0.05151	43.3	65.7	83.65%
No.	OR W45P00	ALL B	1500.0	608.5	0.02990	-0.62960 26855 10NEWIVE 138 26857 10NEWIVE 161 1	W 138 1	-121.0	-148.4	-0.06206	-18.8	-53.3	31.561
No.	OR_W45P00	ALL	1500.0		0.02922	0.74075 27095 11GR RVR 138 27126 110HIO C 138 2	2 138 2	139.6	157.8	0.01769	82.6	93.3	16.891
Mary 1869 1867 1868	OR_W45P00	ALL	1500.0		0.04182	0.06288 27126 110HIO C 138 27141 11SHREMS 138 1 C:Open 27561 14WILSO7 345 27563	7 345 1	130.2	164.8	0.03050	117.9	143.1	17.074
Mail 1869 1867 1867 1868 1867 1868 1868 1868 1868 1868 1868 1869	OR_W45200	ALL_B	1500.0		0.10535	-0.25946 27552 14COLE 5 161 27564 14NATAL5 161 1 C:Open 27028 11GR RV 161 27553	5 161 1	169.0	263.8	0.05897	112.9	165.9	23.973
Mail 1880 1881 1881 1881 1881 1882	OR_W45P00	ALL_B	1500.0		-0.18896	0.35636 26857 10NEWIVL 161 27552 14COLE 5 161 1 C:Open 27028 11GR RV 161 27553		-52.0	-226.7	-0.12525	25.1	-90.7	47.974
Mart	OR W45P00	ACL_B	1500.0		-0.10535	0.25946 27558 14SKILMS 161 27564 14NATALS 161 1 C:Open 27028 11GR RV 161	5 161 1	-160.3	-264.3	-0.05897	-104.1	-162.3	20.441
March Marc	OR_#45P00	Atr. B	1500.0	989.4 *	0.28147	-0.56714 27561 14WILSO7 345 27563 14COLB 7 345 1 Cropen 27028 11GR RV 161	15 161 1	319.4	597.9	0.18008	196.7	374.8	24.03%
Mail	OR_W45P00	Arr.	1500.0	1016.7	-0.25445	-0.42017 27028 11GR RV 161 27553 14MILSOS 161 1 C:Open 27561 14MILSO7 345	7 345 1	-299.0	-557.7	-0.17879	-216.3	-398.1	32.054
Martia 1980 1913 1918	OR_W45P00	ALL. B	1500.0	1125.4	0.07929	0.35439 27551 14REID 5 161 27559 14DAVIS5 161 1 C:Open 27561 14WILSO7 345	7 345 1	175.8	265.0	0.01548	106.1	123.5	11.224
Martia 1980 1913 0.000	OK_#45P00	ALL B	1500.0	1256.9	0.05692	-0.16837 26855 10NEWTVL 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161	5 161 1	71.2	142.7	0.02681	34.8	68.5	9.734
MAL_ 1800 1807 0.05011 1807	OR WASPOO	ALL B	1500.0	1415.0	0.05170	27028 11GR RV 161 27095 11GR RVR 138 2		43.5	116.7				3.734
MAL_ 110.0 110.1 110.	OR 145200	N T	1500.0	1423 9	. 0.07.04	-0.15549 27094 116K STD 138 27095 116K RVR 138 1	7 345 1	-73.7	-179.0	-0.04604	-43.1	-108.6	3.224
MAL_	DR_W45P00	ALL. B	1500.0	1439.7	0.50000	0.00000 18427 8PARADIS SOO 18428 8MONTGOM 500 1	D 138 1	1012.1	1731.9	0.54000	1012.1	1731.9	1.741
1800 1510	OR_W45P00	ALL B	1500.0	1439.7	0.50000	- 18427 8PARADIS S00 18428 BMONTGOM 500 1		1012.1	1731.9				1.744
1980 1580 1581 1880 1581 1880 1581 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1881 1880 1880 1881 1880 1881 1880		,										•	
MORNING 1885 1862	DR_W45P00	GROUP_1B	1500.0	-532.1 *	-0.04260	0.38364 31221 MOBERLY 161 96354 STHWHIL 161 1 C:Open 96150	345 1	-357.3	-334.7	-0.05599.	-209.4	-179.6	25.84%
MIGNOL 1855 1854 1854 1854 1854 1854 1855	DR_W45P00	GROUP_1B	1500.0	-446.3 *	0.02139	0.28802 18409 BJACKSON 500 18410 SJACKSON 161 1. C:Open 18017 BHAYWOOD 500 18413	A 500 1	9,757	748.4	-0.00048	532,9	533.1	5.561
1,000,000,000,000,000,000,000,000,000,0	3R_W45P00	GROUP_1B	1500.0	20.8 R	0.04302	0.40677 26855 10NEWIV 138 26879 10GRNDVM 138 1 C:Open 27560 14HENDRS 161 27617	4 138 1	-176.9	-176.0	0.02209	-128.7		36.151
Control Cont	Manager of	arons Th	1500.0	4 B . C .	-0.02216	0.16225 26851 10CULLEY 138 26879 10GRNDVW 138 1 C:Open 26851 10CULLEY 138	-		175.5	-0.02155	162.3		16.314
100.000 131.0 13	R W45P00	GROUP 18	0.0051	290.2	-0.08401	-0 06663 30237 FOREAU 161 31240 MONEAU 89:0 1 C.Open 30677 GOINKIE 161 -0 06663 30277 C811E 161 161 161 161 161 161 161 161 161			9 7	0.04006	509	9.79	20.00
1900 2011 2012 2014 2012 2014 2012 2014 2012 2014 2012 2014 2012 2014 2012 2014 2012 2014	R_W45P00	GROUP_1B	1500.0	491.4 *	0.08665	0.22078 31408 OVERTON 345 31409 OVERTON 161 1 C:Open 96162 7THOMHL 345 96354		245.0	287.6	0.07894	183.2	222.0	30.38\$
Montho 1800.0 800.0 0.07018 0.77129 13121 MONTHO 1411 13121 MONTHO 1411 1411 1411 1411 1411 1411 0.04451 1411 1	R_W45P00	GROUP_1B	1500.0	502.1 •	0.07880	0,77504 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV 161	R 138 1	1.77	116.7	0.04446	43.5		456.79
MONDON_18 1500.00 200.41 0.07913 131211 MORBILY 11 13121 MORBILY 11 11 11 11 11 11 11	R_W45P00	GROUP_1B	1500.0	503.0	0.07889	0.71235 31221 MOBERLY 161 31222 MOBERLY 69.0 2 C:Open 31221 MOBERLY 161 31222	69.0 1	35.0	74.7	0.04646	20.6		105.27%
GROUP_18 1100.0 STATE Cross 1 200 Cross 1 100 Cr	R_W45P00	GROUP_1B	1500.0	503.6	0.07873	0.77439 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161	R 138 2	77.0	116.7	0.04430	43.3		67.184
1500 1557.4 1.000 1.00	R W45P00	GROUP_1B	1500.0	508.8·	0.07842	0.70816 31221 MOBERLY 161 31222 MOBERLY 69.0 1 C:Open 31221 MOBERLY 161 31222	69.0 2	34.8	74.7	0.04552	20.2	_	104.06%
1500.0 1	R_H45200	GROUP_1B	1500.0	557.8	-0.09908	-0.65393 31024 MARIES 138 96292 SMARIES 161 1 C:Open 31609 RIVMIN 1 138 31933	1 138 1	-41.2	- 96.5	-0.08624	-2.3		96.70%
Group_18 1100.0 1104.5 0.11455 0.114	445500	GROUP_1B	1500.0	\$ 67.55	-0.04924	-0.62960 26855 IONEMTVL 138 26857 IONEMTVL 161 1 C:Open 26851 IOCULLEY 138 26879	W 138 1	-121.0	-148.4	-0.06281	-18.8		31.314
15000 1381.7 1.01664 1.01864	MASPOO	GEOOF 18	1500.0	1104 6 4	0.16035	0.14209 30532 ELDON 161 31400 OSAGE 138 1 C:Open 96143 7FKANKS 345 96292 A 34066 3067 FFERNIS 145 96292		0.4- 0.4-	163.7	0.150/2	6.10-		33.334
Coronal Lance 1500.0 1391.3 1.000.0 1419.7 1.000.0 1419.	R W45P00	GROUP 18	1500.0	1308.7	-0.16035	-0.14289 30532 ELDON 161 96168 SBARNET 161 1 C:Oben 96142 7FRANKS 345 96292		-24.7	234.5	-0.15072	7.0		13.101
GROUP_18 1500.0 1493.7 + 0.50000 0.00000 18427 PRADITS SO 18428 BARNET 161 161 161 1711 1711 0.05931 1771 116.0 1771	R_W45P00	GROUP_1B	1500.0	1394.9 •	0.11804	-0.24080 30957 LKSIDE 1 138 31400 OSAGE 138 I C:Open 96168 SBARNET 161 96814		-23.7	140.9	0.09664	-22.0		8.84%
GROUP_18 1500.0 10.77 0.04316 0.40677 Ze855 IORRUPY ISB 26879 IOGRUPY ISB 1 C.Open 96168 SRANET 161 1 C.Open 27560 IJRRDRA 136 176.9	R_W45P00	GROUP 1B	1500.0	1439.7	0.50000	0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1 C:Open 32279 STALLING 138 32999	A 138 1	1012.1	1731.9	0.50000	1012.1	1731.9	1.74%
GROUP_28 1500.0 44.3 R 0.04316 0.40677 Z6655 IONEMYVL 138 Z6679 IOGNINOW 138 1 C:Open Z6621 IONNINGY 138 1 176.9 177.5 116.7 0.02432 1728.7 1 18.7 0.02442 0.1622 Z6651 IONNINGY 138 1 C:Open Z6621 IONNINGY 138 1 177.1 116.7 0.02442 43.3 0.00000_28 1500.0 44.3 R 0.02442 0	R_W45P00	GROUP_1B	1500.0	1462.1 *	0.10321	-0.49392 30233 CALIF 161 96168 SBARNET 161 1 C:Open 96168 SBARNET 161		23.9	174.8	0.05931	27.3	114.0	2.24
GROUP_28 1500.0 44.3 R 0.01402 0.16222 26851 IOCULLEY 118 26679 IOCRNDYN 13 0 Cropen 26871 IOCULLEY 118 26679 IOCRNDYN 13 0 Cropen 26871 IOCULLEY 118 26879 IOCRNDY_28 IOCRND_28 IOCRNDY_28 IOCRND_28 IOCRND	R_W45P00	GROUP 2B	1500.0	20.7 R	0.04316	0.40677 26855 10NEWIVL 138 26879 10GRNDVW 138 1 C:Open 27560 14HENDRS 161	4 136 1	-176.9	-176.0	0.02432	-128.7	-128.2	36.27\$
1500.0 646.2 + 0.06121 0.7756.27028 1108 RV 164 27028 1108 RV 164 27029 11	R_W45P00	GROUP_2B	1500.0	44.3 8	-0.02402	0.16225 26851 10CULLEY 138 26879 10GRNDVH 138 1 C:Open 26851 10CULLEY 138	D 138 1	176.6	175.5	-0.02396	162.3	161.2	19.901
GROUP_28 1500.0 648.3 + 0.05177 0.77439 27026 110R RVR 138 1 C:Open 2695 10R RV 128 27025 110R RVR 138 27025 110R RV 161 2755 14411605 161 1 109.2 1 109.2 1 109.2 1 10.01290 117.9 1 10R RVR 138 27025 140R RVR 141 2755 14411605 161 1 10.0000 18427 140R RVR 161 2755 14	R_W45P00	GROUP_2B	1500.0	646.2 *	0.06122	0.77504 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV 161		17.11	116.7	0.03455	43.5	65.8	44.76
GROUP_28 1500.0 755.8 + 0.03452 0.65366 26855 100REPTU, 18.1 C.Open 27055 110R PTR 138 27125 110HC C 138 2 135.6 171.0	R_W45P00	GROUP_2B	1500.0	648.3 +	0.06117	0.77439 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161	R 138 2	0.77	116.7	0.03442	43.3		44.61%
GROUP_28 1500.0 103.24 0.02146 0.747819 27095 114R RRR 118 27155 114R RRR 118 27095 114R RRR 118 27155 114R C 138 1 C.Open 27095 114R RRR 118 27155 114R C 138 1 C.Open 27095 114R RRR 118 27155 114R C 138 1 C.Open 2705 114R RRR 118 27155 114R C 138 1 C.Open 2705 114R RR 118 27155 114R C 138 1 C.Open 2705 114R C 138 1 C.Ope	R_W45P00	GROUP_2B	1500.0		-0.03452	-0.62960 26855 10NEWTVL 138 26857 10NEWTVL 161 1 C:Open 26851 10CULLEY 138	W 138 1	-121.0	-148.4	-0.04961	-18.8		16.434
OROUP_28 1500.0 1041.2 0.02398 0.1401.2 118 2.141.1 118 2.141.1 118 2.141.1 118 2.141.1 118 2.141.1 118 2.141.1	R_W45P00	GROUP_2B	1500.0		0.02146	0.75819 27095 11GR RVR 138 27126 110HIO C 138 1 C:Open 27095 11GR RVR 138	C 138 2	139.6	157.8	0.01269	9 7 4		
0ROUP_28 1500.0 1041.9 0.03516 0.05527 0.55751 44110507 345 27551 140105 7345 1.05751 140105 151 3134 551.0 0.17911 155.7 0.0000_28 1500.0 1041.9 0.03515 0.05575 0.05751 140105 151 1.0 0.0000_28 1500.0 1137.5 0.014593 0.5565 2687 104877U, 11 27523 140105 511 1 0.0000_28 1500.0 1137.5 0.014593 0.5565 2687 104877U, 11 27523 140105 7345 7345 7345 7345 7345 7345 7345 734	004540	GROUP 2B	1500.0	1023.8	0.02096	0.740/5 Z7095 IIGK KVK I38 Z7IZE ILOHIO C 138"Z C.Open Z7095 IIGK KVK I38	1 138 I		D. / CT	0.0150	9,711	140.7	9.194
Company 28 150.0 1197.5 -0.14553 0.35655 26557 10000E 5 161 C.Open 27028 1100R RV 161 27553 14WILGOS 161 -52.0 -276.7 -0.09788 25.1 CROUP 28 150.0 1231.6 -0.11009 -0.42017 27058 14MILGOS 161 C.Open 27561 14MILGOS 161 15.8 25.0 -55.7 -0.1303 -2.15.7 CROUP 28 150.0 1231.6 0.07593 27551 14MILGOS 161 C.Open 27561 14MILGOS 161 15.8 25.0 0.00893 106.1 CROUP 28 150.0 1357.0 0.06935 -0.25946 27552 14MILGOS 161 C.Open 27561 14MILGOS 161 169.0 267.8 0.00497 CROUP 28 150.0 1435.7 0.5000 0.0000 1427 Behablis 500 14488 86000 1459.1 C.Open 1218 312405 MINDSOR 138 1.012.1 1.012.9 CROUP 28 150.0 1458.1 0.5000 0.0000 1427 Behablis 500 14488 86000 1450.1 C.Open 1218 31405 MINDSOR 138 1.012.1 1.012.1 CROPA 1218 150.0 1458.1 0.50010 0.59010 0.59010 1.012.1 1.012.1 CROPA 1218 1.012.0 1.012.1 1.012.1 CROPA 1218 1.012.0 1.012.1 1.012.1 CROPA 1218 1.012.0 1.012.1 1.012.1 CROPA 1218 1.012.1 1.012.1 CROPA 121	M45500	GEOUF 28	1580.0	1089 7 *	0.03518	-0 66714 27641 14M11807 24 2764 14C018 7 345 1 C.Oben 27028 1108 RV 161 27553	5 161 1	319.4	597.9	0.17911	196.7		17.54%
GROUP_28 1500.0 1231.3 • -0.21009 -0.42017 27028 11GR RV 161 27559 14WILGOS 161 1 C:Open 27561 14WILGOS 145 27563 14COLE 7 345 1 -299.0 -557.7 -0.13483 -216.3 GROUP_28 1500.0 1357.9 • 0.07240 0.35459 27551 14RED 5 161 27559 14WILGOS 161 1 1756 14COLE 7 345 1 175.8 265.0 0.00893 106.1 GROUP_28 1500.0 1357.9 • 0.02985 -0.25946 27552 14COLE 7 345 1 1 1.05.0 144.9 1 1.05.0 144.9 1 1.05.0 144.9 1 1.05.0 144.9 1 1.05.0 144.9 1 1.05.0 144.9 1 1.05.0 144.9 1 1.05.0 1.05.0 1.05.0 1 1.05.0 1.05.0 1 1.05	R W45P00	GROUP 2B	1500.0	1197.5	-0.14593	0.35636 26857 IONEWIVL 161 27552 14COLE 5 161 1 C:Open 27028 11GR RV 161	5 161 1	-52.0	-226.7	-0.09788	25.1		19.494
GROUP_2B 1500.0 1232.6 • 0.07240 0.35439 27551 14REID 5 161 27559 14DAVIS55 161 1 C.Open 27561 14RHIGSO7 345 27563 14COLB 7 345 1 155 8 265.0 0.00893 1106.1 0 GROUP_2B 1500.0 1357.0 • 0.06836 -0.25946 27552 14GOLB 5 161 27563 14RVIXA55 161 1 C.Open 27263 14RUIGSO 161 1 162.0 1 263.0 0.00487 112.9 0.00487 112.9 0.00487 112.9 0.00487 112.9 0.00487 112.9 0.00487 112.9 0.00487 112.9 0.00487 112.9 0.00487 112.0 112.1 112.9 0.0048 112.0 112.1 112	1_H45900	GROUP_2B	1500.0	1231.3 •	-0.21009	-0.42017 27028 11GR RV 161 27553 14WILSOS 161 1 C:Open 27561 14WILSO7 345 27563	7 345 1	-299.0	-557.7	-0.13483	-216.3	-382.4	10.124
GROUP_28 1500.0 1357.0 * 0.06285 -0.25944 2752 1400LE 5 161 27541 14NATALS 167 1 C:0pen 27028 1108 RV 161 27953 14NILEGOS 161 1 159.0 265.0 0.03487 112.9 GROUP_28 1500.0 1439.7 0.50000 -0.0000 1837 20000 10000 10000 10000 10000 10000 10000 GROUP_2B 1500.0 1439.7 0.50000 -0.0000 14472	R W4SP00	GROUP_2B	1500.0	1232.6 *	0.07240	0.35439 27551 14REID 5 161 27559 14DAVIS5 161 1 C:Open 27561 14WILGO7 345	7 345 1	175.8	265.0	0.00893	106.1	117.1	7.324
GROUP_28 1500.0 1459.7 0.50000 0.00000 1647 PARADIS SON 1 6:0pen 23120 OSCALONE 138 13122 OSCUNNTZ 138 1 1012.1 1731.9 0.50000 1012.1 1 1731.9 0.50000 1012.1 1731.9 0.500000 1012.1 1731.9 0.500000 1012.1 1731.9 0.50000 1012.1 1731.9 0.500000	R W45POD	GROUP_2B	1500.0	1357.0 •	0.06985	-0.25946 27552 14COLE 5 161 27564 14NATAL5 161 1 C:Open 27028 11OR RV 161 27553	5 161 1	169.0	263.8	0.03487	112.9	160.2	3.78
GROUP_28 1500.0 1458.1 + 0.02531 0.59319 22388 GIDNEY 138 12405 MIRA TRP 138 1 C:Open 32384 WINDSOR 138 1 246.6 283.5 0.02055 155.4	R_M45P00	GROUP_2B	1500.0	1439.7 *	0.50000	0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1 C:Open 23120 05CALDWE 138 23232	Z 138 1	1012.1	1731.9	0.50000	1012.1	1731.9	1.74%
GEORGE 25 COST. 0.07531 0.0753	R_W45P00	GROUP_238	1500.0	1439.7	. 58000	- 18427 BPARADIS 500 18428 BMONIGOM SOU 1 BROGG CREGG		1.7101	201.9	2000	155 4	185.4	186
100 1 C 400 C C 400 C C 400 C C 600 C 600 C C	1500_OR_W45P00	GROUP_2B	1500.0	1458.1	0.02531	0.59319 32388 SIDNEY 138 32405 MIRA TAP 138 1 C:Open 32388 SIDNEY	1 877	240.6	283.5	0.020.0	CCT		

Company program

Secretary Secret

24 . 434	19,401	109.041	14.54\$	40.684	177. RZ	13.06t	22.46%	10.46%	98.214	98.214	12.691	21.934	15.84	29.771	12.331	9.994	18.07	7.364	1.74%	1.74%	1.86*	28.134	39.214	19.061	81.264	35.98%	20.87%	18.104	7.161	8.94	58.80%	26.921	23.394	25.944	22.894	11.364	B.634	3.60%		21.144	33.161	39.051	28.24	31.11	47.494	339.88	94.631	94.44	26.691	40.17\$	38.34	157.304	150.18*	
-128.3	158.0	65.3	146.0	25.7	-106.1	93:3		87.1	34.6	32.3	142.0	377,3	162.0	-84.3	-158.0	122.7		0.69	1731.9		-108.4	155.2	-128.3	161.2	65.8	-53.4	93.3	87.1	143.8		-95.4	167.9	-164.5	3.77.5	8.366.	5.69	-110.2		1731.9	251.4	-128.3	-69.6	157.9	-52.1	-112.3	2.5	65.8	65.7	0.66	-111.1	-51.6	-23.5	-20.5	
-128.7	162.3	43.5	137.9	14.8	-87.1	82.6		75.2	-20.7	-19.3	117.9	196.7	112.9	25.1	-104.1	106.1		4	1012.1		-43.1	168.0	-128.7	162.3	6.04	18.8	82.6	75.2	117.9		25.1	112.9	171.7	196.7	-216.3	34.8	-43.1		1012.1	7.672	-128.7	-73.2	162.3	-60.5	B 88 .	8.66-	43.5	43.3	5.1	-71.2	-18.8	e	5.51	
0.01291	-0.01241	0.06286	0.02115	0.02560	-0.03517	0.01530		0.01394	0.05958	0.05550	0.02587	0.17711	0.04715	-0.16923	-0.04715	0.01435		9	0.50000		-0.04488	0.02577	0.02290	-0.02225	0.05066	-0.06787	0.02016	0.01837	0.03522	0.00708	-0.14166	0.06417	0.02501	0.18770	-0.17871	0.01813	-0.05132		0.50000	0.01338	0.01774	0.02577	-0.01710	0.03214	-0.08437	0.03257	0.05644	0.05623	-0.03257	-0.08437	-0.06697	-0.02739	-0.02739	
-176.0	175.5	116.7	201.5	143.3	-114.2	-148.4	-114.2	157.8	6.99	6.99	164.8	597.9	263,8	-557.7	-264.3	265.0	116.7	116.7	1731.9	1731.9	-179.0	189.7	-176.0	175.5	116.7	-148.4	157.8	157.8	164.8	189.7	-226.7	263.8	243.5	5.765	-557.7	265.0	-179.0	164.8	1731.9	343.6	-176.0	-64.7	175.5	4.4	-217.0	142.0	116.7	116.7	7.85.	-215.7	-148.4	0.65-	-59.0	
-176.9	185.7	17.1	191.6	120.1	-96.1	139.6	-87.1	136.4	-40.0	-40.0	130.2	319.4	169.0	-299.0	-160,3	175.8	43.5	43.3	1010 4	' -	1.67-	202.9	-176.9	176.6	ř.77	0.77	139.6	136.4	130.2	. 433.9	-52.0	169.0	221.0	319.4	-299.0	175.8	-73.7	117.9	1012.1	386.1	-176.9	6.981	185.7	-100.7	-193.5	158.8	77.1	0.77	7.0	139.6	-121.0	-12.5	-8.3	
27560 14HENDRS 161	27551 14REID 5 161 27560 14HENDR5 161	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	C:Open 2/028 11GK KV 151 2/095 11GK KVK 138 2 C:Onen 18885 5GALLAT2 161 19117 5FOUNTAL 161 1	C:Open 26013 08GRNTWN 138 26110 08MIER 138 1	27004 11BRWN N 345	C:Open 26851 IOCULLEY 138 26879 IOGRNDVW 138 1	Z/126 110810 C 138	195 11GR RVR 138 27126 11OHIO C	11CANAL 69.0 27260 11FALLS	27180 11CANAL 69.0 27260 11FALLS	27561 14WIL907 34S 27563	27028 11GR RV 161 27553 14WILSO5	11GR RV 161 27553 14WILSOS	27561 14WILSO7 345	C:Open 2/028 1108 RV 161 2/333 14M15SOS 161 1	14MILSO7 345 27563 14COLE 7			TIGR RV 161 27553 14WILBOS 161 1	err urruent 67767	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	TOGGINA	C.Onen 27560 148RNDRS 161 27617 148RNDR4 138 1	26851 10CULLEY 138 26875 10ANGMND	27028 11GR RV 161 27095	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	11GR RVR 138 27126 110HIO C	138 27126 110HIO C	345 27563	C:Open 18430 8DAVIDSO 500 18432 8MAURY 500 1		11GR RV 161 27553 14WILSOS	05JEFRSO 765 22671	C:Open 27028 11GR RV 161 27553 14M1LSO5 161 1 C:Onen 27028 11GR RV 161 27553 14W1LSO5 161 1	345 27563 14COLE 7	7 345 27563	C:Open 27028 ligR RV 161 27553 14MLBOS 161 1 C-Onen 27561 14WILGO7 345 27563 14COLE 7 345 1		C:Open 30650 GRAY SUM 138 31634 ROCKWD1 138 1	C:Omm 18012 SPARADIS 161 18926 SABERD T 161 1	14HENDRS 161 27617 14HENDR4	27002 11ALCALD 345 27004 11BRWN N 345	27002 11ALCALD	11RODBRN 138	11101 8BAD CRK 500 11102 8JOCASSE 500	29386 20JKSMIT 161 29500 20POWELE	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	27028 11GR RV 161 27095 11GR RVR	23051 05FULLER 138 23173 05MILLBR	27095 11GR RVR 138 27126	11101 8BAD CRK 500 11102 8JOCASSE 26851 10CUTARY 138 26879 10GRNDVM	OSFULLER 138 23173 OSMILLBR	23051 05FINAR 138 23173	330C) 05E() 14B 231/3
0.40677 26855 10MEMTVL 138 26879 10GRNDVM 138 1	10CULLEY 138 26879 10GRNDVW	11GR RV 161	0.77439 27028 11GR RV 161 27095 11GR RVR 138 1	05HUNT J 138 26018	11DIXDAM69.0 27295 11WC-DD 69.0	TONEHTVE 138 26857 IONEWIVE 161	0.75819 27095 11GR RVR 138 27126 11OHIO C 138 1	11GR RVR 138 27126 11OHIO C 138	27180 11CANAL 69.0 27260 11FALLS 69.0	27180 11CANAL 69.0 27260 11FALLS 69.0	27126 110HIO C 138 27141 11SHREWS 138	27561 14WILSO7 345 27563	27552 14COLE S 161 27564 14NATALS 161	11GR RV 161 27553 14WILSOS 161	0.35636 26857 10NEWIVE 161 27552 14COLE 5 161 1	27551 14REID 5 161 27559 14DAVIS5 161	27028 110R RV 161 27095 110R RVR 138	27028 11GR RV 161 27095 11GR RVR 138	10NEWIVL 138 27079 11CLVRPR 138	0.00000 18427 BPARADIS 500 18428 BMONIGOM 500 1	11GR STL 138 27095 11GR RVR 138		0.07024 22570 059POKN 345 22987 055FOKNA 136 I	26851 10CULLEY 138 26879 10GRNDVW 138	11GR RV 161 27095 11GR RVR 138	11GR RV 161 27095 11GR RVR 138	.0.62960 26855 10NEWTVL 138 26857 10NEWTVL 161 1	11GR RVR 138 27126 11OHIO C 138	110HIO C 138 27141 11SHREWS 138	5DAVSN 2 161 19070	05SPORN 345	-0.25946 27552 14COLE S 161 27564 14NATALS 161 1	08BATESV 138 25182	0.25946 27558 145KILMS 161 27564 14NATALS 161 1	161 27553 14WILSOS	27551 14RRID S 161 27559 14DAVIS5	-0.16837 26855 10NEWIVL 138 27079 11CLVRPR 138 1	27141 11SHREWS	BPARADIS 500 18428 BMONTGOM	1 191 AP JWORD 18581 121 DIGKORD CHARLOLLES A	0.40677 26855 10NEWIVE 138 26879 10GRNDVW	0.08991 29496 20PITTSB 161 29602 ZOTYNER	11DBLVIN 161 27045 11HI TAP			11LR TAP 161	24067 05GRAYSB69.0	0.77504 27028 11GR RV 161 27095 11GR RVR 138 2	24067 05GRAYSB69.0	27095 11GR RVR 138 27126	11084 SNANTARA 161 11172	-0.62960 26855 10NEWIVE 138 26857 10NEWIVE 151 1	0.48488 24084 USPLIM G89.0 24031	***************************************
0,02927	-0,02950	0.11140	0.11130	0.05433	-0.03355	-0.04169	- 71250 0-	0.02527	0.11507	0.11507	0.03701	0.27308	0.09106	-0.24364	-0.16146	0.07711	0.06286 -	0.06263 -	0.05467	0.50000	-0.07242		0.02677	-0.02303	0.08977	0.08969	-0.05386	0.03331	0.04702	0.02041	0.02577	0.11054	0.02620	-0.11054	-0.25757	0.08465	0.05847	0.03522 -	0.50000		0.020.0	0.05643	0.02729	-0.03984	0.02378	-0.05677	0.13742	0.10002	-0,13742	0.04021	-0.08437 -	-0.05620	-0.09287	
30.6 R	345.6 R	355.1 •	356.3 *	428.3	541.2 •	* 0.659	703.5	849.3	926.5	928.7 *	933.7 *	1019.8	1041.0 *	1061.7 •	1082.3 *	1157.3 *	1163.8	1171.1		1439.7 *	1453.3 *		-494.0 +	46.2 R	440.7 *	442.1	510.0	533.7	734.8	806.4 *	844.4	857.5	\$ 2.658	940.7 *	1004.3	1054.2 *	1223.6 +	1347.3	1439.7 *		* /. eliz-	38.0 R	138.4 R	255.9 R	262.9 R	279.U •		395.5 *	432.5	452.6	473.1 •	488.8	200.0	
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1580.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	
GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP JR	GROUP 3B	GROUP 3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	\ \ !	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP 48	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	•	GROUP_5B	GROUP SE	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP SB	GROUP_SB	GROUP_5B	GROUP 58	
OR W45P00	1500 OR W45P00	LSOO_OR_W4SP00	1500_OR_W45P00	5 8	1500_OR_W45P00	1500 OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00 1500_OR_W45P00		500 OR W45 P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	б, t	1500_OR_W45P00	(8	1500_OR_W45P00	1500_OR_W4SP00	LSOCOR_W4SP00	1500 OR W45P00		1500_OR_W15P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_ON_W45P00 1500_OR_W45P00		1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR N45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W45P00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500	LF Case: W45P00OS.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL; PHC.EXC
--	---

F 7

7 7

11.424	181.044	7 424	31.474	8.40%	55.364	7.314	31.34%	26.424	5.044	24.764	100.22	12.124	20.02	8.204	9.60	1.91%	19.084	13.051	5.07	9.82	3.02	186.	10.711	1.231	9.06	1.493	3.544	1.74		26.614	46.074	\$1.134	186.05	24.61%	7.88	22.701	26.641	27.72	39.48%	18.641	5.55%	12.894	13.834	4.694	2.824	1,748	1.744	0.473		6.314	27.834	74.521	74.354	81.094	33.584	1444
		144.9	168.9	104.6	5,16.	-117.7	16.3	373.8	-231.6	0.666-	ָרְיִים קיים קיים	-160.9	72.6	-150.2		7.776-	25.1	-113.1	-171.2	;	121.6		2 62	238.8	10.4	105.0	149.7	1731.9		-128.2	157.1	8, 29	65.7	-52.9	100.6	-156.7	-415.0	-147.5	6. 27-	216.9	141.3	64.4	142.8	70.2	199.2	1731.9		116.7		531.6	157.5	65.8	65.7	-74.2	-52.4	
-155.6	31.8	117.9	112.9	91.5	25.1	6.99	4.3	196.7	-208.1	-216.3	1. T. C.	-114.2	34.8	-113.7		-352.8	15.7	-43.1	-130.6	1	7.56	:	7.0	213.4	1.4	91.3	1. 5	1012.1	•	-128.7	20.2	43.5	43.3	-19.8	112.9	-104.1	-216.3	9.99-	25.1	9.0	117.9	34.8	20.6	9.6	162.6	1012.1		106.7	1.	532.9	162.3	43.5	43.3	-42.5	-18.8	
-0.02061	-0.03919	0.04181	0.0020	0.01510	-0.13359	-0.07414	0.01290	0.18507	-0.02452	-0.18675	0.01487	-0 04393	0.03529	-0.03291		-0.02197	0.03291	-0.05699	-0.03291		0.01993		0.00518	0.01489	0.00661	0.00987	0.04733	0.50000		0.01670	-0.01632	0.03735	0.03721	-0.05288	0.05522	0.01208	-0.20857	-0.08234	-0.10182	0.12675	0.01974	0.02481	0.09725	0.04737	0.02574	0.5000		0.08574	0.00/19	0.00335	0.01881	0.04761	0.04744	-0.06121	-0.06298	
-213.1	-83.7	164.8	263.8	158.0	-226.7	-264.3	40.6	597.9	-343.8	-557.7	78.8	265.0	142.7	-249.7	164.8	-440.0	-276.9	-179.0	-277.3	116.7	178.1	116.7	58.7	48.0	53.0	167.6	221.6	1731 9	£ : 15 / 1	-176.0	175.5	116.7	116.7	-148.4	263.8	157.8	-557.7	-181.6	-226.7	597.9	164.8	142.7	264.9	95.9	181.6	1731.9	1731.9	257.2	265.0	748.4	176.0	116.7	116.7	-129.9	-148.4	
-199.0	26.1	130.2	169.0	139.5	-52.0	-160.3	19.5	319.4	-313.3	ï	41.3	175.8	71.2	191.4	117.9	-414.0	-215.5	-73.7	-212.6	43.5	143.4		0.5	10.0	2 6	137.3	126.4	1913 1	7.7701	-176.9	185.7	23.0	77.0	-121.0	169.0	139.6	239.0	1.98-	-52.0	319.4	130.2	71.2	75.8	19.6	9.99	1012.1		107.1	175.8	6.757	-176.9	77 1	77.0	-74.4	-121.0	
27064 11BRWN N 138 27101 11HIGBY	23051 05FULLER 138 23173 05MILLBR	27561 14WILSO7 345 27563 14COLE 7	C:Open 18430 BDAVIDSO 500 18432 BMAURY 500 1	29331 20GODDRD 138 29498	27028 11GR RV 161 27553 14WILSOS	27028 11GR RV	11SHREWS	27028 11GR RV 161 27553 14WILSOS	22617 OSNPROCT 765 23190 OSNPROCT	27561 14WILSO7 345 27563 14COLE 7 345 1	24088 05DCHEMP69.0 24089 05E HAVH69.0	C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1	TIBRON F 138 2/056 IIBRANII	11HAEFLI 138 27153		08SGROVE 138 25692 08SGROVE	C:Open 27097 11HASFLI 138 27153 11W LEXN 138 1	345 27563 14COLE 7	11VILEY 138 27153 11W LEX		C:Open 29200 20AVON 345 29564 20SPURLK 345 1		OSFULLER 138 23173 OSMILLER	23051 05FULLER 138 23173	C:Open 22950 USKENOVA 130 22957 USIKISIA 150 1 C:Open 23051 OSFULLER 138 23173 OSMILLER 138 1	27015 11W LBXN 345 27153 11W LEXN	27012 11SMITH 345 27142 11SMITH	96194 SCLINTN 161 96236 SGBORGE	C:Open 32426 OGLESBY 138 32430 LASALUE 138 1		27551 14REID S 161 27560 14HENDRS	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1	11GR RV 161 27095 11GR RVR	26851 10CULLEY 138 26879 10GRNDVW	27028 11GR RV 161 27553 14WILSOS	27095 11GR RVR	14COLE 7	27561 14WILSO7 345 27563 14COLE 7	27028 11GR RV 161 27553 14WILGOS	11GR RV 161 27553 14WILSOS	C:Open 18002 SSHAWNE1 161 18033 SMCCKACK 161 1	11GR RV 161 27553 14WILSO5	27028 11GR RV 161 27553 14WILSOS	C:Open 27025 11BARL N 161 27042 11RQ TAP 161 1		C:Open 18034 5C-31		27561 14WILSO7 345 27563 14COLE 7	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	18017 BHAYWOOD 500 18413 BCORDOVA	27560 14HENDRS 161 27617 14HENDR4	27551 14RBID 5 161 27560 14HENDRS	C:Open 27028 11GR RV 161 27095 11GK KVR 150 1 C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	11087 BADIN 100 11192 ALBEMARL	26851 10CULLEY 138 26879	
-0.02562 -0.29190 27057 11BKR LN 138 27064 11BRWN N 138 1	20ARGTM 138 29198	110HIO C 138 27141	0,08585 18698 5DAV5N 2 161 19070 5GRASL T 161 1	11FLEMIN 138 27093 11GODDRD	26857 10NEWIVL 161 27552 14COLE 5	27558 14SKILMS 161 27564 14NATAL5	0.69224 18040 SSANTERT 161 18900 SFONTANA 161 1	27561 14WILSO7 345 27563	22950 05KENOVA 138 22997 05TRISTA	-0,42017 27028 11GR RV 161 27553 14WILSOS 161 1	24088 0SDCHEMP69.0 24091	27551 14REID 5 161 27559 14DAVIS5			110HIO C 138 27141 118HREWS	08BUFTN1 138 25405	11VILEY 138 27153 11W LEX	-0.16749 24075 05LEONKY69.0 29406 20LEON 69.0 1	1148 FLI 118 27153	11GR RV 161 27095	11GODDRD 138 27137	- 27028 11GR RV 161 27095 11GR RVR 138 1	24085 05SCIOTI69.0 24087	05HITCHI69.0 24075	-0.27346 22997 OSTRISTA 138 23060 OSCHADMC 138 1	11HIGBY 138 27136	-0.28576 27099 11HARDEG 138 27100 11HARDN 138 1	RJRTOBCV 100 11307	0.00000 18427 8PARADIS 500 18428 BMONTGOM 500 1	0.40677 26855 10NEWIVL 138 26879 10GRNDVW 138 1	10CULLEY 138 26879	11GR RVR69.0 27271	0.77504 27028 IIGR RV 161 27095 IIGR RVK 138 2 n 77439 27028 11GR RV 161 27095 IIGR RVK 138 1	26855 10NEWTVL 138 26857 10NEWTVL	161 27564 14NATALS	27095 11GR RVR 138 27126 11OHIO C	0.25946 27558 148KILMS 161 27564 14NATAL5 161 1	118881. N 161 27042 1180 TAP	26857 10NEWTVL 161 27552 14COLE 5	27561 14WILSO7 345 27563 14COLE 7	18034 5C-31 161	27126 11OHIO C 138 27141 11SHRBHS	14RRID 5 161 27619 14HOPCO5	27020 11CORY T 161 27035 11MORGNF	27025 11EARL N 161 27042 11RQ TAP	5SHAWNE1 161 18033	0.00000 18427 8PARADIS 500 18428 BMONIGOM 500 I	11GR RV 161 27042 11RQ TAP	0.35439 27551 14REID 5 161 27559 14DAVI85 161 1	18410	10NEWIVL 138 26879 10GRNDVW	Y 138 26879 10GRNDVW	11GR RV	ALBEMARL	TONEWTYL 138 26857 10NEWTYL	10NEWTVL 138 26657
-0.02562	-0.17422	0.05345	0.02270	0.02118	-0.20014	-0.11855	-0.02187	0.29098	-0.03189	-0.26451	0.03690	0,08420	-0.08266	-0.05251	0.04181 -	-0.02293	-0,05251	0.03069	7/580.0-	0.05644 -	0.02672	0.05623	0.04455	0.02876	0.02549	0.02187	0.06870	-0,09756	0.50000	0.03182	-0,03211	0.02717	0.05618	-0.04261	0.10933	0.02042	-0.10933	0.27153	-0.17614	0.26813	0.19237	0.02916	0.05993	0,05971	-0.08234 -	0.13670	0.50000	0.10207	0.06029	0.02514	0.03902	-0.03936	0.06438	0.08431	-0.10/22	06140
549.1 *	630.6 •	646.5 *	725.0 •	871.0 *	873.1 *	877.2	904.0	957.1	957.5 *	978.0 ·	1017.2 *	1059.9		1109.1			1170.4	1172.6 *			1298.7 •	1304.3		1320.8 *	1353.5 +	1382.9	1385.4 *		1439.7 *	28.1 R			597.8 +	644.B *	867.0 *		951.2 *	952.7		1038.6 *		1184.7	1193.7	1279.2	1397.0		1439.7	1470.4	1480.2	-379.8		259.0 R		470.3	517.7	*
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500 0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0 000,
GROUP 5B	GROUP_5B	GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_5B	GROUP 5B	GROUP_SB	GROUP SB	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_5B	GROUP SB	GROUP_5B	GROUP SB	GROUP_5B	GROUP_SB	GROUP_SB		GROUP_5B	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP GB	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 68	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_68	GROUP_GB	GROUP 6B	GROUP 6B	GROUP_6B	RE GEORGE	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_78	
1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00 1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR #45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_#45P00	1500_OR_W45P0D	000000	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	

CBSE: 2004 SUMWER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
WASPOROS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF CBSE: WASPOROS SBS; MON: PHC.mon; SUBSYST; PHC.sub; CONT: PHC.con; EXCL; PHC.EXC

403.2 4.56%		-104.2 29.978								-401.8 24.11%	193.1 41.304			~			1731.9 1.74%	1.74%			148.3 55.074		-		-161.0 48.46%		50.7 47.63%	179.1 8 1.67			N		123. 0 1.74£		2.994		101.8 0.914	-107.4 0.484		161.2 17.54%	65.7 87.545				142.9 16.644				-396.5 21.204	•	6	5.934		1731.9 1.74%	1.74	
399.5	75.2	-76.2	117.9	112.9	-88.8	-42.5	-104.1	25.1	196.7	-216.3	6. 50	106.1	8. 4.	23.7	-71.2		1012.1	;	1.64-		162.3	137.9	125.1	-0.2	-118.4	118.4	19,8	196.7	- 184 - 4	73.4	25.0	-55.2	20.6	1.7707		64.0	9.69	-53.6	-128.7	162.3	6.5	-16.9	82.6	75.2	117.9	112.9	196.7	-104.1	-216.3	14.8	34.8		-43.1	1012.1		
0.00565	0.01689	-0.03952	-0.03943	0.06666	-0.02852	-0.06121	-0.06666	-0.12488	0.17654	-0.18794	-0.04243	0.01499	0.03036	TT660.0-	-0.02852		0.50000		-0.04499		0.01500	-0.01570	0.13892	-0.01299	-0.05815	0,05815	0.07551	0.16878	0.31288	0.02388	0.10509	-0.05815	-0.10509	00006.0		0,02586	0.02586	-0.03611	0.02123	-0.02067	0.05341	0.05321	0,01738	0,01583	0.02993	-0.12552	0.18165	-0.05592	-0.17497	0.015/1	0.02541		0.046	0.50000		
450.3	157.8	-154.0	-154.1	263.8	-217.0	-163.0	-264.3	-226.7	597.9	-557.7	-69.4	265.0	142.7	-181.6	-68.9	-129.9	1731.9	1731.9	164.8		175.5	0.941	226.7	-141.5	-223.5	223.6	148.4	597.9	-245.9	262.3	264.8	-255.4	-264.9	9.1671	226.7	140.4	140.6	-191.7	-176.0	175.5	116.7	116.7	157.8	157.8	164.8	-226.7	597.9	-264.3	557.7	265.0	142.7	116.7	116.7	1731.9	1731.9	
433.9	136,4	-112.6	-112.6	169 0	193.5	-74.4	-160.3	-52.0	319.4	-299	39 1.6		71.2	-86.1	99 23.1 -175.8	42.5	1012.1	1012.1	117.9	:	212.6	-176.9	191.6	-122.5	-120.1	120.1	35.8	200.7	-218.8	76.1	26.9	-56.8	18.7	1012.1	25.1	64.0	9.69	-53.6	-176.9	176.6	1.1	0.77.0	139.6	136.4	130.2	-52.0	319.0	-160.3	-299.0	175.8	71.2	43.5	43.3	1012.1	1012.1	
8DAVIDSO 500 18432 BMAURY 500	27095 11GR RVR 138 27126 11OHIO C 138	11192 ALBEMARL 100 11291 OAKBORO	11192 ALBEMARL 100 11291 OAKBORO	27561 14MIGSO7 345 27563 14COLE 7 345	11102 RICEASSE 500	11087 BADIN 100 11192 ALBEMARL 100	27028 11GR RV 161 27553 14WILSOS 161	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	27028 11GR RV 161 27553 14WILSOS 161	27561 14WILSO7 345 27563 14COLE 7 345 1	11067 BADIN 100 11088 HIGH RCK 100	27561 14WILSO7 345 27563 14COLE 7	11GR RV 161 27553 14WILSOS	14WILSO7 345 27563 14COLE 7 345 1	BADIN 100 11088 HIGH RCK 100	11102 GOOGNOOD	C:Open 32349 MAROA W 345 32356 LATHAM 345 1		C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1		10ABBRWN 138 27617 14HENDR4	10ABBRWN 138 27617 14HENDR4	18885 SGALLAT2	2/561 14WILSO/ 345 2/563 14COLE /	14WILSO7 345 27562 14REID 7	27561 14WILSO7 345 27562 14REID 7 345	27561 14HILSO7 345 27563 14COLE 7	14WILSO7 345 27562 14REID 7	OSAMO 345 26186 OSBELLEU	C:Open 27561 14#ILSO/ 345 2/563 14Cobs / 345 1	14HILSO7 345 27562 14RBID 7	14WILSO7 345 27562 14REID 7	14WILSO7 345 27562	C:Open 23113 GSEROADA 138 23240 GSTIDD 138 1		561 14WILSO7 345 50010	345 50010 #2A-345A 345	14WILS07	C.Open 27560 14HENDRS 161 27617 14HENDR4 138 1	26851 10CULLEY 138 26875 10ANGMND	11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	C:Open 26851 locutLEY 138 26879 logRNDVW 138 1	11GR RVR 138 27126 11OHIO C	27561 14WILSO7 345 27563	27028 11GR RV 161 27553 14WILGOS	27038	161 27553 14WILSOS	27561 14WILSO7 345 27563 14COLE 7	14MILSO7 345 27563 14COLE 7	C:Open 26013 08GRNTHN 138 26110 08M1ER 138 1			C:Open 27561 14HIL907 345 27563 14COLB 7 345 1	Ciopen 25450 oabswolless o 15171 conference	
0.08585 18698 SDAVSN 2 161 19070 SGRASL T 161 1		ALBEMARL 100 11291	ALBEMARL 100 11291 OAKBORO	110HIO C 138 27141 11SHREWS	-0.25946.27552.14COLB 5.161.27564.14NATALS.161.1	O 25158 11087 BADTN 100 11192 ALBEMARI	14SKILMS 161 27564	10NEWIVE 161 27552 14COLE 5	14WILSO7 345 27563	11GR RV 161 27553 14WILSOS	11254 HLNG SPG 100 11267 LINDENST	14REID 5 161 27559 14DAVIS5	10NEWTVL 138 27079 11CLVRPR	11BARL N 161 27042 11RQ TAP	-0.49997 11088 HIGH RCK 100 11226 ENRG U32	11084 SNANTAHA 161 11172 SROBBING 161 A	SPARADIS SDO 18428 BMONTGOM	SPARADIS 500 18428 SMONTGOM	-0.15549 27094 11GR STL 138 27095 11GR RVR 138 1	IIOHIO C ISB Z/141 IISBREBS	0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1	10NEWTVL 138 26879 10GRNDVW	SGALLATI 161 19154 SHARTGVI	10NEWTVL 161 27552 14COLE 5	-0.65625 25078 080XLNU 138 2/6/1 15FELS 130 1	10ABBRWN 138 27617 14HENDR4	10NEWIVE 138 26857 10NEWIVE	0.64389 27561 14NILSO7 345 27563 14COLE 7 345 1	08PRNCTN 138 26081 08GIB	27561 14HILBO7 345		14REID 5 161 27560 14HENDRS 161	14REID 5 161 27619 14HOPCOS	BPARADIS 500 18428 BMONTGOM	SPARADIS 500 18428 SMONTGOM	26857 10NEWIVE 161 27552 19COLE 5 181 1	11POND C 138 27144 11TIPTOP 138	27025 11EARL N 161 27033 11LIV C 161		26879 IOGRNDVW	11GR RV 161 27095	11GR RV 161 27095 11GR RVR	26855 10NEWTVL 138 26857	0.75619 27095 11GR RVR 138 27126 110HIO C 138 1	27126 110HIO C 138 27141	26857	27552 14COLE 5 161 27564 14NATALS	-0.56714 27561 14MILSO7 345 27563 14COLE 7 345 1	161 27553 14WILSOS	27551 14REID 5 161 27559	23464 05HUNT J 138 26018	-0.16837 26855 10NEWTVL 138 27079 11CLVRPR 138 1	11GR RV 161 27095	27094 11GR STL 138 27095 11GR RVR	0.00000 18427 BPARADIS 500 18428 8MONTGOM 500 1 18427 BPARADIS 500 18428 8MONTGOM 500 1	
0.02461	0.03062	-0.05837	-0.05830			-0.02852 -	-0.11542	-0.19185	0.28313	-0.26211	-0.06644	0.07756	0.06201	-0.07264		-0.02852 -	0.50000	•		0.03208 -	0.03970	-0.03935	. 0.02507	0.20935	-0.02928	0.14114	0.12239	0.37024	-0.02457	0.41075	0.15954	-0.14114	-0.19932	0.50000	0.50000	0.13892	0.05219	-0.09268 -		0.04274	0.09465	0.09457	-0.04873	0.02938	0.02870	-0.18787	0.10132	0.28089	-0.10132	0.08009	0.02011	0.05487	0.05321	-0.07480	0.50000	
668.7 +	100.9	708.8	712.3	800.2 +	821.3 *	825.2 8 25 5 4	901.0	910.8	983.6 *	986.9	1069.4 *	1150.6 *	1153.7 *			1399.3 *	1439.7 *	1439.7	1452.8 *	1462.6	-933.6	-22.7 *	397.5 +		649.3 *	733.4	920.2 *	1072.7 *	1104.4 *		1167.1 *		1422.9 *	1439.7 *	1439.7	1450.9	1463.6	1489.9		20.9 R	418.0 *	419.3 *		619 4 *	835.6	930.1	935.6	991.5	1026.4 *	1114.3 *	1157.5 •	1303.8 *	1378.3	1406.9	1439.7	
1500.0 668.7 *	1500.0	1500.0	1,500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0021	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1.7251
GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 78	GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B			GROUP_7B	GROUP_7B		GROUP_7B	GROUP_7B	GROUP BB	GROUP_BB	GROUP_8B	GROUP_68	GROUP_8B	GROUP_8B	GROUP 8B	GROUP 8B	GROUP_8B	GROUP_8B	GROUP_8B	GROUP AB	GROUP BB	GROUP_6B	GROUP_8B	GROUP_8B	GROUP BB	GROUP SB	ı	GROUP_NB	GROUP NE	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	an alloan	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NO
1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45200	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45500	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00 '	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45 P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	8	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	I	1500 OR W45P00	1500 OK #45200	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OK W45200	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45200	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W45P00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500 LF Case: W45P00OS,sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

A STATE OF THE PARTY OF THE PAR

Ang Control of the

	5 28.031	8 74.96t	74.794				-	1 15.71			•				LO,		0 31.28%		•			1 22.21			1.744		106.0
-128.3	157.5	65.8	65.7				- 74.2	. 87.1	403.2	143.6		•		-164.0		-112.3	-93.0	370.3	-401.9		69.7	-43.1	-139.0	1731.9		-108.6	
-128.7	162.3	43.5			-18.8	82,6	-42.5	75.2	399.5	117.9	-76.2	-76.2	112.9	-104.1	25.1	-88.8	-42.5	196.7	-216.3	106.1	34.8	2.3	9.99-	1012.1		-43.1	
0.01895	-0.01839	0.04781	2000		-0.06308	0.01864	-0.05313	0.01698	0.00529	0.03226	-0.03433	-0.03425	0.06628	-0.06628	-0.12530	-0.02556	-0.05313	0.17655	-0.18807	0.01502	0.03024	-0.03677	-0.05493	0.50000		-0.04525	
-176.0	175.5	116.7			-148.4	157.8	-129.9	157.8	450.3	164.8	-154.0	-154.1	263.8	-264.3	-226.7	-217.0	-163.0	597.9	-557.7	265.0	142.7	-69.4	-181.6	1731.9	1731.9	-179.0	164.8
-176.9	185.7	1 22		0.77	-121.0	139.6	-74.4	136.4	433.9	130.2	-112.6	-112.6	169.0	-160.3	-52.0	-193.5	-74.4	319.4	-299.0	175.8	71.2	9.1 66	-86.1	1012.1	1012.1	7.67-	117.9
C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1 -176.9	1 151 24 PENDRS 161 1	010 000 000 000 000 000 000 000 000 000	ZINZA TICK KV 161 ZINJS LICK KVR	27095	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	C:Open 18430 8DAVIDSO 500 18432 8MAURY 500 1		C: Open 11192 ALBEMARL 100 11291 OAKBORO 100 1	C:Open 11192 ALBEMARL 100 11291 OAKBORO 100 2	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	C:Open 27028 119R RV 161 27553 14WIL905 161 1	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	C:Onen 11087 BADIN 100 11192 ALBEMARE 100 2	27028 11GR RV	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	11087 BADIN 100 11088 HIGH RCK 100	27561 14WILSO7	161 30413		C:Open 27561 14WILGO7 345 27563 14COLB 7 345 1	Base Case
0 40677 26855 INNEWTOF 174 26879 100RNDVW 138 1	MUNDOUT BEST SET NOTHINGS SHOW COMES	-0.42491 20051 INCOLUBE 138 288/9 INCOMPAN	0.77504 27028 11GR RV	0,77439 27028 11GR RV 161 27095 11GR RVR 138 1	-0,62960 26855 10NEWIVL 138 26857 10NEWIVL 161 1	0 75819 27095	NIGAR TARK A PARTY	AVA WALL SOUTS STANT O	0 08585 18698 5DAVSN 2 161 19070	0.06288 27126 310HIO C 138 27141	0.47785 11192 ALBEMARL 100 11291 CAXBORO	0.47727 11192 ALBEMARE 100 11291 OAKBORO	-0.25946 27552 14COLE 5 161 27564 14NATALS		0.35636 26857 10NBMTVL 161	- 11172	A 25158 11087 BANTH 100 11192 ALBEMBRI.	-0 56714 27567 14WILSO7 345 27563 14COLE 7	V8 4011 82072 71028 0-	0.35439 27551 14REID 5 161 27559 14DAVIS5	-0.16837.26855	TENDENSTI 1254 NING 880 101 1267 LINDENST		5 C C C C C C C C C C C C C C C C C C C	MODITIONE BEABL ON PICKETAGE PEAST	AND STATE OF THE STATE OF THE SUR	- 27126 110HIO C 138 27141 118HREWS
0 03034		66660.0-	0.08472	0.08465	-0.05150	15150.0	90580 0-	0.000	2020.0	96690 0	-0.05070	19050-0-	0.11507	-0.11507	-0,19232	-0.02556	90180	12830	26036	0.07759	0.06191	-0 06361	1977	4570.0	0000	0.5000	0.03226
27 9 9		257.6 K	467.0 *	468.4	533.4 *	. 1	. 4		9 5 5 5	796 9 *	816.0 *	820.0	823.8	903.7	. 9.806	920.7	963 2			1150.1 *	1155 6 *			1 6 7 7 6 7	1439.4	1439.7	1454.5
TOO OOS	0.0007	1500.0	1500.0	1500.0	0.0051	1500	0.001	0.0001	0.0051	0.0051	1500.0	0 0051	1500.0	1598.0	0.0051	1500.0	0 00 00	0.0051	0 000	0.0051	0 0051		0.0051	0.0001	0.0061	0.0051	0.0051
To Thouse	GROOF SE	GROUP SB	GROUP_SB	GROUP SB	apollo st	as alload	de droge	10000	ar anoug	arioan	GE JOOND	as alloas	BS dilogo	ap dilogo	ES GILORD	28 011085	20000	ac_anone	anous	as alloan	as attoms	מים מווסעים	droup an	dkour_sa	GKOOP SB	GROUP_SB	GROUP SE
From	2000	500_OR_W45P00	500_OR_W45P00	500 OR W45P00	SOU OF WASPOO	00 845 800	200 200 200 200 200 200 200 200 200 200	000000000000000000000000000000000000000	300 00 445000	200 00 445000	500 OR W45 P00	500 OB W45900	SOU OR WASPID	200 00 005000	500 OR W45B00	500 OB WAS BOO	001511110000	200 200 200 200	200 200 200 200	200 00 845 000	001511 00 00	2010 00 000	200 00 442500	500 OK W45 F00	200 OK #45 P00	500 OR #45P00	500 OR W45 P00 .

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OW: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case: W4SP00OW sev; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Section 1

FCIIC MULTIPLE TRANSFER REPORT: W45P000W+PHCR65.TRA

Monitor File: C:\BV-USEKS\NOBODY\PHC.mon Contingency File: C:\BV-USEKS\NOBODY\PHC.con Subsystem File: C:\BV-USEKS\NOBODY\PHC.eub Exclude File: none

1500.0 -1936.5 *	0.04214	-FOUR AND LIMITED TIME SOUTH CONTROL TO 10. 25537 18468 SVOLUNTE SO 18469 SVOLUNTE 161 1	C:Open 18018 8PHIPP B Soo 18468 SVOLUNTE Soo 1	M66h 19r#8BLER 1214.2	1132.6	0.01310	793.9	
	0.08967	0.75412 18464 SBULL RU 500 18468 BVOLUNTE 500 1	18457 8WBNP 1 500 18468 8VOLUNTE	1810.6	1724.0	16670.0		
	0.08786	161 27095	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	124.3	132.2	0.04939	6.69	74.4 93.55%
	0.02970	0,77429 27028 11GK KV 161 27095 11GK KVK 138 1 0,75817 27095 11GR RVR 138 27126 11OHIO C 138 1	27095 11GR RVR 138 27126 11OHIO C	164.8	171.8	0.01757	5.7.5	
•	0.04224	26851 10CULLEY 138 26879 10GRNDVW 138	26861 10ABBRWN 138 27617 14HENDR4	188.6	176.0	-0.02018	143.3	137.3 28.84%
Ϋ,	0.02435	0.59587 27079 ILCEVRPR 138 27094 ILGR BTL 138 1	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	-181.1	-189.3	0.00375	-36.7	
	0.05684	11HARDN 345 27012 11SMITH 345	27099 11HARDEG 138 27100 11HARDN	-285.5	-306.0	-0.04717	•	
	0.02902	11GR RVR 138 27126 11OHIO C 138	27095 11GR RVR 138 27126 11OHIO C	161.0	171.9	0.01601	88.8	94.8 18.98%
ρ,	-0.11262	BJVILLE 500 18430 8DAVIDSO 500	C:Open 18425 BCUMBERL 500 18430 BDAVIDSO 500 1	1831.9	1/31.4	-0.17620	,	
9 6	0.25213	-0.42013 27028 11GR RV 161 27553 14W1LSOS 161 1	161 27553 14WILSOS	319.8	597.8	0.18074		
	0.05616	ONEWTVL 138 27079 11CLVRPR 138	161 27553 14WILSOS	83.1	142.2	0.02651	43.5	
ņ	0.18810	26857 10NEWTVL 161 27552 14COLE 5 161	C: Open 27028 11GR RV 161 27553 14NTLSO5 161 1	-37.5	-242.2	-0.12531	46.3	
-0-1	-0.10091	ONEWTVL 138 26857	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	-58.9	-168.8	-0.06205	-7.1	-74.6 24.56%
0.04958	- 856	27028 11GR RV 161 27095 11GR RVR 138 2	Base Case	70.2	132.2			9.364
0.04939	- 666	161 27095 11GR RVR	Base Case	6.69.9	132.2			116.0
0.50000	. 8	27012 115MITH 345 27142 115MITH 138 1 0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1	Base Case C:Open 32387 SIDNEY 345 32368 SIDNEY 138 1	1012.7	1730.5	0.50000	1012.7	1730,5 1.86%
		:		9 0 0 0	ם אנני	91716	1264.6	1188.6 8.71
0.04235	322	SBULL RU 500 18468 8VOLUNTE		1356.7	-134.7	-0.05308		-
-0.04099	660	0.38383 31221 MOBERLY 161 96354 STHMHIL 161 1	145 3656	305.0	-286.2	-0.02309		
-0.04505	0 1	OSOC BET NAME	OSSOE REL NARY CROSS	-305.0	-286.2	-0,02309	-156.4	146.7 30.18%
0.0480	, ,	MOBERLY 161 31222 MOBERLY 69.0	31221 MOBERLY 161 31222	88.5	75.0	0.04076	52.1	
0.06882		MOBERLY 161 31222	31221 MOBERLY 161	6.78	75.0	0.03994	51.0	-
0.07893		11GR RV 161 27095	27028 11GR RV 161	124.3	132.2	0.04454	70.2	
0.07887		0.77429 27028 11GR RV 161 27095 11GR RVR 138 1	11GR RV 161 27095	124.2	132.2	0.04438	69.9	14.4 83.448
0.02800	8	11GR RVR 138 27126 110HIO C 138	27095 11GR RVR 138	164.8	171.8	0.01656	E 641	
-0.04343	2	10CULLEY 138	C:Open 26861 10ABBRNN 138 2761/ 14HbNDK4 138 1	1.181.1	-189.3	0.00023	-36.7	
-0.02609	60	0.59587 27079 ILCLVRPR 138 27094 ILGH SIL 138 1	31609 RIVMIN 1 138	-65.0	95.7	-0.08009	-25.4	-52.1 112.324
-0.09213	513	134 96292	96162 7THOMHL 345 96354	259.4	289.9	0.08106	188.6	
	70000.0	118MITH 345 27143 118MITH	27099 11HARDBG 138 27100 11HARDN	-287.2	-307.3	-0.04418	-242.4	
,	0.05257	11HARDN 345 27012	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	-285.5	-306.0	-0.04418	-240.7	257,9 19.07
	0.02736	11GR RVR	11GR RVR 138 27126	••	171.9	0.01509	B (94.8 17.535
۰	0.080.0	-	C:Open 30677 GUTHRIE 161 30805 JC FAIR 69.0	99 49.5	83.9	0.06375	B .	
9	0.20105	0,60927 18422 8JVILLE 500 18430 8DAVIDSO 500 1	18425 SCUMBERL 500 18430 SDAVIDSO	1831.9	1731.4	-0.12491	4.000	
-	-0.14724	0,43126 30957 LKSIDE 1 138 31024 MARIES 138 1	30532 ELDON 161 96168 SBARNET	-36.6	0.581	-0.040.01	11 7	
9	0.06362	LT 161 30027 APCH FLTS	30677 GUTHRIE 161 31239 MOREAU	7.67	6.66		-7.2	
o	0.18456	161 31400 OSAGE	30957 LKSIDE 1		4.557.4	-0.18694	-235.1	
ė	0.26018	11GR RV 161 27553 14MILSOS	Sect 2 Car Internation of the Court of the C	-118.1	-243.0	-0.08469	-119.9	207.3 23.264
ė	-0.12098	0.42842 30233 CALIF 161 31409 OVERION 161 1	RIDON 161 96168 SBARNET	-16.7	142.9	0.08994	-26.5	
	0.14622	LASIDE I ISB SINCE CONTROL	27552 14COLE 5 161 27564 14NATAL5	88.3	142.2	0.02546	43.5	
0.0	8 1 5	TOWERT VIEW A 128 21915 PLPS N	30532 ELDON 161	31.4	105.8	0.03937	7.72	
, ,	0.000.0	138 26857 10NEWTVL	27552	-59.3	-168.8	-0.06286	-7.1	-84.9 13.724
	19507	CAMPBELL 138 31273 MSD	C:Open 32300 MAD TAP 138 32301 MAD IND 138 1	124.0	286.1	0.08591	84.8	195.1 9.25
-0.1	0.18456	ELDON 161	C:Open 30957 LKSIDE 1 138 31024 MARIES 138 1	-38.6	-282.8	-0.13148	0.62.	
0	0.16123	10NEWTVL 161	C:Open 27552 14COLE 5 161 27564 14NATAL5 161 1	-22.3	-242.2	19/21.0-		
ò	0.50000	18427 8PARADIS 500 18428 8MONTGOM 500 1	C:Open 31114 MEPPEN T 138 31115 MEPPEN 69.0 1	1012.7	1730.5	0000		
			C.O. 19016 8PHIPP H 500 18468 8VOLUNTE 500 1	1214.2	1132.6	0.01022		
٠,	0.03516	-0.35537 18468 BVOLUNIE SUU LE469 SVOLUNIE IST I	C.Open 18457 8HBNP 1 500 18468 BVOLUNTE 500 1	1810.6	1724.0	0.06104		
	0.07564	11GR RV 161 27095 11GR RVR	27028 11GR RV	124.3	132.2	0.03353	70.2	74.6 61.44%
, .	0.05937	11GR RV	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	124.2	132.2	0.03341	69.9	
							, ,,,	

### 27093 114RRDER 13 2725 115RRTH 134 2 1345.1 1151.2 1151.3 114RTH 134 2 1245 115RRTH 134 2 1245 115RRTH 134 2 1245 115RRTH 134 2 1245 115RRTH 134 2 1245 114RRDER 139 2 12001 114RRTH 134 2 1255 14RLIGOS 141 1 131.5	110R RV 151 110R RV 161
27099 IIHNROBG 138 27100 IIHNROW 138 1 - 287.2 27029 IIHNROBG 138 27100 IIHNROW 138 1 - 285.5 27028 IIGR RV 151 27553 I4M15005 161 1 113.9 27028 IIGR RV 151 27553 I4M15005 161 1 113.5 27028 IIGR RV 151 27553 I4M15005 161 1 110.2.7 27028 IIGR RV 151 27553 I4M15005 161 1 110.2.7 27028 IIGR RV 151 27553 I4M15005 161 1 110.2.7 27028 IIGR RV 151 27553 I4M15005 161 1 110.2.7 27028 IIGR RV 151 27553 I4M15005 161 1 110.6 27028 IIGR RV 152 27553 I4M15005 161 1 110.6 27029 IIGR RV 152 27095 IIGR RVR 138 1 124.2 27028 IIGR RV 152 27095 IIGR RVR 138 1 124.2 27028 IIGR RV 152 27095 IIGR RVR 138 1 124.2 27029 IIGR RVR 138 27124 IIGHOC C 138 1 161.0 27029 IIGR RVR 138 27124 IIGHOC C 138 1 161.0 27029 IIGR RVR 138 27124 IIGHOC C 138 1 161.0 27029 IIGR RVR 138 27124 IIGHOC C 138 1 161.0 27029 IIGR RVR 138 27124 IIGHOC C 138 1 161.0 27029 IIGR RVR 138 27124 IIGHOC C 138 1 161.0 27028 IIGR RV 161 27553 I4M15005 161 1 110.2 27028 IIGR RV 161 27553 I4M15005 161 1 110.1 27028 IIGR RV 161 27553 I4M15005 161 1 10.1 27028 IIGR RV 161 27553 I4M15005 161 1 10.1 27028 IIGR RV 161 27553 I4M15005 161 1 10.1 27028 IIGR RV 161 27059 IIGR RVR 138 1 124.3 27028 IIGR RV 161 27059 IIGR RVR 138 1 124.3 27028 IIGR RV 161 27059 IIGR RVR 139 1 124.3 27028 IIGR RV 161 27059 IIGR RVR 139 1 124.3 27028 IIGR RV 161 27059 IIGR RVR 139 2 124.3 27028 IIGR RV 161 27059 IIGR RVR 139 2 124.3 27028 IIGR RV 161 27059 IIGR RVR 139 2 124.3 27029 IIGR RVR 139 27124 IIGR RVR 139 2 124.3 27029 IIGR RVR 139 27124 IIGR RVR 139 2 124.3 27029 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27029 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 124.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 125.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 125.3 27021 IIGR RVR 139 27124 IIGR RVR 139 1 125.3 27021 IIGR RVR 121 27553 IAM15005 161 1 110.3 27021 IIGR RVR 121 27553 IAM15005 161	27122 115HKTH 138 1 C10pen 27059 11HARDBG 139 114HARDBG 139 124A2 124A1 1354 1 C10pen 13042 011HARDBG 139 11HARDBG 139 114HARDBG 139 12525 144K1205 151 1 C10pen 13042 011HARDBG 139 114K1205 151 1 C10pen 27053 114K1205 145 144K1205 144K1205 145 144K1205 144K1205 145 144K1205 144K120
19425 GUNNERL SO 144120 STORINGRON 1198 1 -285.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 161 27553 14W1205 161 1 -595.5 27028 110R RV 118 27150 11W RV 118 1 -124.2 27028 110R RV 118 27150 11W RV 118 1 -126.5 27029 110R RV 118 27150 11W RV 118 1 -595.5 27029 110R RV 118 27150 11WR RV 118 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 25110 09M1RM 138 1 -595.5 27028 110R RV 118 27553 14W1205 161 1 -595.5 27028 110R RV 118 27553 14W1205 161 1 -595.5 27028 110R RV 118 25110 09M1RM 50 0 1 1013.7 27028 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27028 110R RV 118 27553 14W1205 161 1 -595.5 27028 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 27553 14W1205 161 1 -595.5 27029 110R RV 118 2755	14470 1940/1205 95 11 C.Open 13425 GUNEREL 500 27553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 12553 1400/1205 145 1400/1205 1
27028 110R RV 151 27553 148TLGOS 151 1 151 151 151 151 151 151 151 151	77553 1401002 7 345 1 C:0pen 77028 1108 RV 151 144523 1401002 7 345 14481200 7 345 14481200 7 345 14481200 7 345 14481200 7 345 14481200 7 345 14481200 7 345 14481200 7 345 14481200 7 345 1448 RV 151 14423 800407000 8 00 1 8 ase Case 14848 8004NTB 8 10 C:0pen 77028 1488 RV 151 14428 1488 1488 PV 151 14428 7 345 1448 RV 151 14428 RV 151 144
27754 144TLSCY 345 27554 144CLGS 145 1 - 55 9 22111 0552NEW 125 27555 144CLGS 151 1 - 55 9 22112 0552NEW 125 27555 144TLSCS 151 1 1012.7 2028 1018 RV 161 27553 144TLSCS 151 1 1012.7 2028 1018 RV 161 27553 144TLSCS 151 1 1212 2028 1018 RV 161 27553 144TLSCS 151 1 1212 2028 1018 RV 161 27553 144TLSCS 151 1 1212 2028 1018 RV 161 27555 1018 RVR 138 1 1214.2 2028 1018 RV 161 27555 1018 RVR 138 1 1214.2 2028 1018 RV 161 2755 1018 RVR 138 1 1214.2 2029 114ANDBG 118 27126 11081C C 138 1 124.2 2029 114ANDBG 118 27100 114ANDW 138 1 1-295.5 2029 114ANDBG 118 27100 114ANDW 138 1 1-295.5 2029 114ANDBG 118 27100 114ANDW 138 1 1-295.5 2029 114ANDBG 118 27200 114ANDW 138 1 1-295.5 2029 114ANDBG 118 27100 114ANDW 138 1 10.25 2029 114ANDBG 118 2720 144TLSCS 161 1 12412 2020 106R RV 161 27553 144TLSCS 161 1 12412 2020 106R RV 161 27553 144TLSCS 161 1 12412 2020 106R RV 161 27055 110R RV 138 1 12412 2020 106R RV 161 27055 110R RV 138 1 2220 2020 106R RV 161 27055 110R RV 138 1 1227 2020 110R RV 161 27553 144TLSCS 161 1 12412 2020 110R RV 161 27553 144TLSCS 161 1 1241 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV 161 27553 144TLSCS 161 1 1291 2020 110R RV	27553 1447L269 1451 1 C.Open 27054 1447L3697 345 1447L3697 345 1447L3697 345 1447L3697 345 1447L3897 1447L3897 1447L3897 1447L38 1447L38 840WTTOON 500 1 C.Open 27028 110R RV 151 14428 840WTTOON 500 1 C.Open 27028 110R RV 151 14428 840WTTOON 500 1 C.Open 27028 110R RV 151 14428 1446 840WTWT 510 1 C.Open 27028 110R RV 151 14428 1446 840WTWT 510 1 C.Open 27028 110R RV 151 14428 1446 840WTWT 51 1447 840R 138 2 C.Open 27028 110R RV 151 14428 1446 840WTWT 51 15 C.Open 27028 110R RV 151 14428 1446 840WTWT 51 15 C.Open 27028 110R RV 151 14428 1446 840WTWT 51 15 C.Open 27029 114RAD80 138 27025 110R RV 151 14428 1444 1444 1444 1444 1444 1444 14
2311 108 KV 161 2735 14HILGOS 161 1 1012.7 2312 108 252NNEV 136 2735 050HICCT 136 1 1012.7 2312 108 252NNEV 136 2735 050HICCT 136 1 1012.7 2312 108 25 25 25 25 25 25 25 25 25 25 25 25 25	14428 BWONTOON 500 1 Gropen 27028 110R RV 151 14428 BWONTOON 500 1 Gropen 27028 110R RV 151 14428 BWONTOON 500 1 Gropen 27028 110R RV 151 14428 BWONTOON 500 1 Gropen 27028 110R RV 151 27025 114C-05 8.0 1 Gropen 27028 110R RV 151 27025 114C 8.0 1 Gropen 27028 110R RV 151 27025 114R RVR 138 1 Gropen 27028 110R RV 151 27025 114R RVR 138 1 Gropen 27028 110R RV 151 27025 114R RVR 138 1 Gropen 27028 110R RV 151 27025 114R RVR 138 1 Gropen 27028 110R RV 151 27025 114R RVR 138 1 Gropen 27028 110R RV 138 27026 114R RVR 138 1 Gropen 27028 110R RV 151 27026 114R RVR 138 1 Gropen 27028 110R RV 151 27026 114R RVR 138 1 Gropen 27028 110R RV 151 27026 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 114R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27029 110R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27028 110R RV 151 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1 Gropen 27021 114R RVR 138 27021 114R RVR 138 1
1012.7 27028 11GR KV 161 27553 14WILGOS 161 1 102.6 13453 94RPF 1 500 16468 8VOLUMTE 500 1 1346.2 1346.8 13	18428 9NGNYTGOM 500 1 Base Case 18468 9VGUNYTE 161 1 C.Open 27028 11GR RV 161 18468 9VGUNYTE 161 1 C.Open 27028 11GR RV 161 22295 11GR RVR 135 1 C.Open 27028 11GR RV 161 27025 11GR RVR 135 1 C.Open 27028 11GR RV 135 27025 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27025 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27026 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27020 11FALLS 69.0 2 C.Open 27028 11GR RVR 138 27020 11FALLS 69.0 1 C.Open 27029 11GR RVR 138 27020 11FALLS 69.0 1 C.Open 27029 11GR RVR 138 27020 11FALLS 69.0 1 C.Open 27028 11GR RVR 138 27020 11FALLS 69.0 1 C.Open 27028 11GR RVR 138 27020 11FALLS 69.0 1 C.Open 27028 11GR RVR 138 27020 11FALLS 69.0 1 C.Open 27028 11GR RV 161 27020 11FALLS 69.0 1 C.Open 27028 11GR RV 161 27020 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11CRURYR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RV 161 27029 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR RVR 138 1 C.Open 27028 11GR RVR 138 27021 11GR
27028 11GR RV 161 27553 14M1LGOS 161 1 114.2 18018 8PHIPP B 500 18468 BVOLUMTS 500 1 1114.2 23248 054M62BM 138 27313 051146 B WOLUMTS 500 1 1114.2 23248 1054M62BM 138 27315 0114 CLIT 138 1 1213.6 23202 11GR RV 161 27095 11GR RVR 138 1 124.2 22028 11GR RVR 138 27126 11GH CO 138 1 124.2 22028 11GR RVR 138 27126 11GH CO 138 1 124.2 27029 11HARDH 138 77126 11GH CO 138 1 148.6 27029 11HARDH 138 7712 011HARDH 138 1 1-287.2 27029 11GR RVR 138 27126 11GH CO 138 1 1-227.2 27029 11GR RVR 120 11FALLS 65.0 1 1-227.2 27029 11GR RVR 120 11FALLS 65.0 1 1-237.2 27029 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27029 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1-237.2 27028 11GR RV 161 27553 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27553 14W1LSOS 161 1 1012.7 27029 11GRWRP 130 27126 11GR RV 138 1 124.3 27028 11GR RV 161 27553 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 162 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 161 27559 14W1LSOS 161 1 1012.7 27028 11GR RV 1	19469 5VOLNYIE 1611 C:Open 18018 8PHIPP B 500 18468 8VOLNYIE 1611 C:Open 18018 8PHIPP B 500 12848 4 20417 C 161 C:Open 18018 8PHIPP B 150 12848 4 20417 C 161 C:Open 27048 11847 8 MARCHEN 138 27295 11847 8 138 2 C:Open 27048 11848 V 151 27055 1184
12012 SPHIPP B 500 18468 BVOLUMTE 500 1 1214.2 2024 GAMAGEN 128 27211 GILV. 136 1 229.5 27055 ILBERN P 138 27215 GILV CLIF 138 1 121.2 27055 ILBERN P 138 27215 GILV CLIF 138 1 121.2 27055 ILBERN P 141 27095 ILOR RVR 138 1 121.2 27055 ILBERN P 152 27095 ILOR RVR 138 1 121.2 27055 ILOR RVR 138 27226 ILORICO C 138 1 144.8 27059 ILHARDER 128 27126 ILORICO C 138 1 148.6 27059 ILHARDER 128 27120 ILHARDN 138 1 1-225.5 27059 ILHARDER 128 27120 ILHARDN 138 1 1-225.5 27059 ILHARDER 50.0 27560 ILFALLS 69.0 2 1-122.0 27059 ILHARDER 50.0 12760 ILTALLS 69.0 1 1131.9 27058 ILOR RV 161 27553 IAWILSOS 161 1 151.2 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27058 ILOR RV 161 27553 IAWILSOS 161 1 1012.7 27059 ILORUPR 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 138 27124 ILORICO C 138 1 124.3 27059 ILORUPR RV 118 27553 IAWILSOS 161 1 131.3 27059 ILORUPR RV 118 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3 27058 ILOR RV 161 27553 IAWILSOS 161 1 125.3	19469 SVOLUNTE 1611 1 C:Open 18018 SPHIPP B 500 12248 SVOLUNTE 500 1 C:Open 2248 SWOLUNTE 500 1 C:Open 2248 SWOLUNTE 500 1 C:Open 2248 SWOLUNTE 500 1 C:Open 22048 SWOLUNTE 500 1 C:Open 22048 SWOLUNTE 500 1 C:Open 27028 11GR RV 153 27025 11GR RV 138 1 C:Open 27028 11GR RV 153 27025 11GR RV 138 1 C:Open 27029 11GR RV 138 27025 11GR RV 138 1 C:Open 27029 11GR RV 138 27025 11GR RV 138 27025 11GR RV 138 1 C:Open 27029 11GR RV 138 27025 11GR RV 138 27025 11GR RV 138 1 C:Open 27029 11GR RV 138 27025 11GR RV 138 1 C:Open 27028 11GR RV 141 27025 11GR RV 138 27025 11GR RV 138 1 C:Open 27028 11GR RV 141 27025 11GR RV 138 1 C:Open 27025 11GR RV 141 27025 11GR RV 138 1 C:Open 27025 11GR RV 141 27025 11GR RV 138 1 C:Open 27025 11GR RV 141 27025 11GR RV 138 1 C:Open 27025 11GR RV 138 27025 11GR RV 138 1 C:Open 27025 11GR RV 138 27025 11GR RV 139 27025 11GR RV 139 27025 11GR RV 139 27025 11GR RV 1
22025 118RNN P 135 2711 0511V. 136 1 1310.6 22025 118RNN P 135 2715 011W CLIF 138 1 141.2 27025 118RNN P 135 2715 011W CLIF 138 1 141.2 27025 118RNN P 135 27126 110R RW 138 1 124.2 27025 110R RW 136 27126 110R RW 138 1 124.2 27025 110R RW 136 27126 110R RW 138 1 148.6 27025 110R RW 136 27126 110R RW 138 1 148.6 27025 110R RW 136 27126 110R RW 138 1 148.6 27025 110R RW 136 27126 110R RW 138 1 148.6 27025 110R RW 126 2726 01RAEMS 69.0 2 120.0 27025 110R RW 126 2726 01RAEMS 69.0 2 120.0 27025 110R RW 152 2756 11RAEMS 138 1 1-287.2 27025 110R RW 152 2755 14W1505 50.0 1 1311.9 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 152 2755 14W1505 161 1 10.12.7 27025 110R RW 139 27124 110R RW 139 2 124.0 27025 110R RW 139 27124 110R RW 139 1 124.0 27025 110R RW 139 27124 110R RW 139 1 126.2 27025 110R RW 139 27124 110R RW 139 1 126.2 27025 110R RW 118 27124 110R RW 139 1 126.2 27025 110R RW 118 27124 110R RW 139 1 126.2 27025 110R RW 118 27124 110R RW 139 1 126.2 27025 110R RW 118 27124 110R RW 139 1 126.2 27025 110R RW 118 27124 110R RW 139 1 126.2 27025 110R RW 118 2752 14W1505 161 1 11.2 27025 110R RW 118 2752 14W1505 161 1 11.2 27025 110R RW 118 2752 14W1505 161 1 11.2 27025 110R RW 118 2752 14W1505 161 1 11.2 27025 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1505 161 1 11.2 27026 110R RW 118 2752 14W1	2248 200LIT C 161 1 CCQen 2248 080MCBN 138 27295 11MC-DD 69 0 1 CCQen 2248 080MCBN 138 1 27295 11MC-DD 69 0 1 CCQen 2248 080MCBN 138 1 27295 11MC RV 151 27295 11MC RV 151 27295 11MC RV 151 27295 11MC RV 151 2739 11MC RV 151 2730 11FMLS 69 0 CCQen 77099 11MCRD 138 1 CCQen 77099 11MCRD 139 1 CCQen 7709 11MCRD 139 1 CCQen 77099 11MCRD 139 1 CCQen 7709 11MCRD 139 1 CCQen 7709 11M
27028 110RRN P 138 27150 110 RUR 138 1 141.2 27028 110RR RN 138 27150 110 RUR 138 1 141.2 27028 110RR RN 138 27126 110RR RN 138 1 124.2 27028 110RR RN 138 27126 110RR CN 138 1 124.2 27029 110RRD 138 27126 110RR CN 138 1 128.6 27029 110RRD 138 27126 110RRC C 138 1 168.6 27029 110RRD 138 27126 110RRC C 138 1 168.6 27029 110RRD 138 27126 110RRC C 138 1 168.6 27028 110RR RN 138 27126 110RRC C 138 1 168.6 27028 110RR RN 161 27553 140RLGOS 161 1 110.3 27028 110R RN 161 27553 140RLGOS 161 1 110.3 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27028 110R RN 161 27553 140RLGOS 161 1 103.6 27029 110CUMPR 138 27124 110RTOR 138 1 124.3 27028 110R RN 138 27124 110RTOR 138 1 124.3 27028 110R RN 138 27124 110RTOR 138 1 124.3 27029 110CUMPR 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 138 27124 110RTOR 138 1 124.3 27021 110RR RN 128 27124 110RTOR 138 1 128.7 27021 110RR RN 128 27124 110RTOR 138 1 128.7 27021 110RR RN 128 27124 110RTOR 138 1 128.7 27021 110RR RN 161 27553 14RTGOS 161 1 139.4 27021 110RR RN 161 27553 14RTGOS 161 1 129.7 27028 110RR RN 161 27553 14RTGOS 161 1 129.7 27028 110RR RN 161 27553 14RTGOS 161 1 129.7 27028 110RR RN 161 27553 14RTGOS 161 1 129.7 27028 110RR RN 161 27553 14RTGOS 161 1 129.7 27028 110R RN 161 27553 14RTGOS 161 1 129.7 27028 110R RN 161 27553 14RTGOS 161 1 129.7 27028 110R RN 161 27553 14RTGOS 161 1 129.7 27028 110R RN 161 27553 14RTGOS 161 1 129.7 27028 110R RN 161 27553 14RTGOS 161 1 129.7 27028 110R RN 161 27553 14RT	77255 114C-DD 69.0 1 C:0pen 77025 114RR PR 135 77055 114C-DD 69.0 1 C:0pen 77025 114RR PR 135 77055 114C-DD 69.0 1 C:0pen 77025 114RR RP 135 77055 114RR PR 135 77055 114RR RP 135 77055
27028 11GR RV 161 27055 11GR RVR 138 1 124.2 27055 11GR RVR 138 21GR RVR 138 2 124.2 27055 11GR RVR 138 21Z6 11GHICC 138 3 164.8 27055 11GR RVR 138 271Z6 11GHICC 138 1 161.0 27059 11GRANDEG 138 27100 11GHICD 138 1 162.0 27059 11GRANDEG 138 27100 11GHICD 138 1 162.0 27059 11GRANDEG 138 27100 11GHICD 138 1 163.0 27059 11GRANDEG 138 27100 11GHICD 138 1 163.0 27058 11GR RV 15 27550 11GFLG 60.0 1 131.9 27058 11GR RV 15 27551 14GLG 50 11 131.5 27058 11GR RV 15 27553 14GLG 50 11 131.5 27058 11GR RV 15 27553 14GLG 50 11 1 103.6 27058 11GR RV 15 27553 14GLG 50 11 1 103.6 27058 11GR RV 15 27553 14GLG 50 11 1 103.6 27058 11GR RV 15 27553 14GLG 50 11 1 103.6 27058 11GR RV 15 27553 14GLG 50 11 1 103.7 27058 11GR RV 15 27553 14GLG 50 11 1 103.7 27058 11GR RV 15 27553 14GLG 50 11 1 103.7 27058 11GR RV 15 27553 14GLG 50 11 1 103.7 27058 11GR RV 15 27553 14GLG 50 11 1 124.3 27058 11GR RV 15 27553 14GLG 50 11 1 124.3 27058 11GR RV 15 27553 14GLG 50 11 1 124.3 27058 11GR RV 15 27553 14GLG 50 11 1 124.3 27059 11GLG 70 2755 11GR RV 130 1 124.3 27059 11GLG 70 2755 11GR RV 130 1 124.3 27059 11GLG 70 2755 11GR RV 130 1 124.3 27059 11GLG 70 2755 11GR RV 130 1 124.3 27059 11GR RV 130 27156 11GR RV 130 1 124.3 27059 11GR RV 130 27156 11GR RV 130 1 124.3 27059 11GR RV 15 2755 14GLG 70 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	27095 IIGR RNR 138 1 C:Open 27028 IIGR RN 154 224755 IIGR RNR 138 1 C:Open 27052 IIGR RNR 138 1 C:Open 27052 IIGR RNR 138 26479 IOGRNDVM 138 1 C:Open 27055 IIGR RNR 138 26479 IOGRNDVM 139 1 C:Open 27055 IIGR RNR 138 27042 IIJRNL 85 0.0 C:Open 27059 IIJRNRDBG 138 27052 IIJRNL 85 0.0 C:Open 27059 IIJRNRDBG 138 27052 IIJRNL 85 0.0 C:Open 27059 IIJRNRDBG 138 27052 IIJRNRDBG 138 27055 IIGR RNR 138 1 C:Open 27059 IIJRNRDBG 138 27055 IIGR RNR 138 1 C:Open 27051 IIJRNRDBG 138 27055 IIGR RNR 138 1 C:Open 27051 IIJRNRDBG 138 27055 IIGR RNR 138 1 C:Open 27051 IIJRNR RN 138 27055 IIGR RNR 138 1 C:Open 27058 IIGR RV 151 141428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 141428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14428 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14458 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14458 MONUTOM 50 0 I C:Open 27058 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27058 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14458 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1 C:Open 27059 IIGR RV 151 14459 MONUTOM 138 1
22023 11GR RVN 151 27025 11GR RVN 138 2 2265 11GR RVN 161 27025 11GR RVN 138 1 2265 11GRBRWN 138 17126 11GHIOC C 138 1 27029 11HARDBG 138 27120 11GHIOLO C 138 1 27029 11HARDBG 138 27120 11HARDN 138 1 27029 11HARDBG 138 27120 11HARDN 138 1 27023 11GR RV 161 27260 11FALLS 65.0 2 27023 11GR RV 161 27260 11FALLS 65.0 2 27023 11GR RV 161 27553 14W1LSOS 161 1 27023 11GR RV 161 27055 11GR RV 138 1 27023 11GR RV 161 27055 11GR RV 138 1 27023 11GR RV 161 27055 11GR RV 138 1 27023 11GR RV 181 27055 11GR RV 138 1 27023 11GR RV 181 27055 11GR RV 138 1 27023 11GR RV 182 27144 11THTOTO 138 1 27023 11GR RV 182 27144 11GR RV 138 1 27023 11GR RV 182 27144 11GR RV 138 1 27023 11GR RV 182 27144 11GR RV 138 1 27023 11GR RV 182 27144 11GR RV 138 1 27023 11GR RV 182 27146 11GR RV 138 1 27023 11GR RV 161 2705 11GR RV 138 1 27023 11GR RV 161 2705 11GR RV 138 1 27023 11GR RV 161 2705 11GR RV 138 1 27023 11GR RV 161 2705 11GR RV 138 1 27023 11GR RV 161 2705 14W1LSOS 161 1 27023 11GR RV 161 2705 14W1LSOS 161 1 27023 11GR RV 161 2755 14W1LSOS 161 1 27024 11GR RV 161 2755 14W1LSOS 161 1 27024 11GR RV 161 2755 14W1LSOS 161 1 2702 27028 11GR RV 161 2755 14W1LSOS 161 1 2702 27028 11GR RV 161 2755 14W1LSOS 161 1 2702 27028 11GR RV 161 2755 14W1LSOS 161 1 2702 27028 11GR RV 161 2755 14W1LSOS 161 1 2702 27028 11GR RV 161 2755 14W1LSOS 161 1 2702 27028 11GR RV 161 2755 14W1LSOS 161 1 2703 14W1 2755 14W1LSOS 161 1 2703 14W1 2755 14W1LSOS 161	777095 110R RWR 138 1 C:Open 27098 110R RW 161 22679 100RBUW 138 1 C:Open 27098 110R RWR 138 1 C:Open 27095 110R RWR 138 27014 110R LWR 138 27015 110R RWR 138 1 C:Open 7709 110R RW 161 27005 110R RW 138 27009 110R RWR 138 1 C:Open 77018 110R RW 161 27009 110R RWR 138 1 C:Open 77018 110R RW 161 27009 110R RWR 138 1 C:Open 77018 110R RW 161 27009 110R RWR 138 1 C:Open 77018 110R RW 161 27009 110R RWR 138 1 C:Open 77018 110R RW 161 161 27019 110R RW 161 161 C:Open 77019 110R RW 181 161 C:Open 77018 110R RW 181 161 C:Open 77019 110R RW 181 181 17 C:Open 77019 11
2667 10ABREN 158 27126 11ONIO C 138 1 148.6 27095 11OR RVR 138 27126 11ONIO C 138 1 148.6 27095 11OR RVR 138 27126 11ONIO C 138 1 1-287.2 27095 11OR RVR 138 27126 11ONIO C 138 1 1-287.2 27095 11OR RVR 138 27126 11FALES 69.0 1 131.9 27028 11OR RV 161 27553 14VHISOS 161 1 131.9 27028 11OR RV 161 27553 14VHISOS 161 1 131.9 27028 11OR RV 161 27553 14VHISOS 161 1 131.9 27028 11OR RV 161 27553 14VHISOS 161 1 101.2 27028 11OR RV 161 27553 14VHISOS 161 1 101.2 27028 11OR RV 161 27553 14VHISOS 161 1 101.2 27028 11OR RV 161 27553 14VHISOS 161 1 101.2 27028 11OR RV 161 27553 14VHISOS 161 1 101.2 27028 11OR RV 161 27553 14VHISOS 161 1 101.2 27029 11CVPRR 138 27144 11OHIS 50 0 1 1214.2 27029 11CVPRR 138 2714 11TFTOP 138 1 101.2 27029 11CVPRR 138 27144 11TFTOP 138 1 124.3 27029 11CVPRR 138 27144 11TFTOP 138 1 128.1 27029 11CVPRR 138 27146 11CVPR 138 1 128.1 27029 11CVPRR 138 27144 11TFTOP 138 1 128.1 27029 11CVPRR 138 27146 11CVPR 138 1 128.1 27029 11CVPR 138 27146 11CVPR 138 1 128.1 27029 11CVPR 138 27144 11CCS 148 1 128.1 27028 11CR RV 161 27553 14VHISOS 161 1 131.3 27028 11CR RV 161 27553 14VHISOS 161 1 129.4 27029 11CVPR 127523 14VHISOS 161 1 129.7 27028 11CR RV 161 27553 14VHISOS 161 1 129.7 27028 11CR RV 161 27553 14VHISOS 161 1 129.7 27028 11CR RV 161 27553 14VHISOS 161 1 129.7 27028 11CR RV 161 27553 14VHISOS 161 1 129.7 27028 11CR RV 161 27553 14VHISOS 161 1 129.7 27029 11CVPR 12753 14VHISOS 161 1 129.7 27029 11CVPR 12753 14VHISOS 161 1 129.7 27029 11CVPR 12753 14VHISOS 161 1 129.7 27029 11CVPR 127	2679 100RIDWH 138 1 C.Open 7862 110R RW 138 27124 110HTW 138 1 C.Open 7862 110RRPW 138 27124 110HTW 138 1 C.Open 7862 110RRPW 138 27024 119HTM 138 1 C.Open 77039 11HMDBG 138 27021 119HTM 138 1 C.Open 77180 11CNNL 69.0 27021 119HTM 138 1 C.Open 77180 11CNNL 69.0 27026 11FNL56 69.0 2 C.Open 77180 11CNNL 69.0 2705 11HML56 79.0 1 C.Open 77180 11CNNL 69.0 2705 11HML60 138 1 C.Open 77180 11CNNL 69.0 2705 11HML60 138 1 C.Open 77180 11CNNL 69.0 2705 11GR RW 138 1 C.Open 77180 11GR RW 158 1 2702 11GR RW 138 1 C.Open 77021 11GR RW 158 1 2702 11GR RW 158 1 C.Open 77021 11GR RW 159 1 C.Open 77
27095 114ARDR RR 138 27124 1100HIC C 138 1 161.0 27095 114ARDR RR 138 27124 1100HIC C 138 1 161.0 27095 114ARDR RR 138 27124 1100HIC C 138 1 161.0 27095 114ARDR C 138 27126 111ARDR 138 1 -285.5 27100 11COMAÑ 69.0 27260 11FALLS 69.0 1 -32.0 27100 11COMAÑ 69.0 27260 11FALLS 69.0 1 -32.0 27028 11GR RV 151 27553 14ATLSOS 161 1 131.5 27028 11GR RV 161 27553 14ATLSOS 161 1 131.5 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 27553 14ATLSOS 161 1 101.7 27028 11GR RV 161 2705 11GR RVR 138 2 124.2 27028 11GR RV 161 2705 11GR RVR 138 2 124.2 27028 11GR RV 162 2705 11GR RVR 138 2 124.2 27028 11GR RV 162 2705 11GR RVR 138 2 124.2 27029 11GR RVR 138 27124 11GR RVR 138 1 124.2 27029 11GR RVR 138 27124 11GR RVR 138 1 124.2 27021 15GR RVR 138 27124 11GR RVR 138 1 124.2 27021 15GR RVR 138 27124 11GR RVR 138 1 116.2 27021 15GR RVR 138 27124 11GR RVR 138 1 116.2 27021 11GR RVR 138 27124 11GR RVR 138 1 116.2 27021 11GR RVR 138 27124 11GR RVR 138 1 116.2 27021 11GR RVR 118 27124 11GR RVR 138 1 116.2 27021 11GR RVR 118 27124 11GR RVR 138 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2 27028 11GR RV 161 27553 14MTLSOS 161 1 116.2	22125 110RHOID C 138 1 C:CQPR 22521 1JANBERN 138 1 27124 1JANBERN 138 1 C:CQPR 27029 1JANBERD C 138 27226 1JANBERN 139 27226 1J
2009 11MANDBO 138 27120 11MANN 138 1 -227.2 27100 11CANAL 69.0 27260 11FALES 69.0 1 -285.5 27100 11CANAL 69.0 27260 11FALES 69.0 1 -285.5 27100 11CANAL 69.0 27260 11FALES 69.0 1 -32.0 27023 11GR RV 151 27553 14GILGSO 161 1 319.8 27023 11GR RV 151 27553 14GILGSO 161 1 319.8 27023 11GR RV 151 27553 14GILGSO 161 1 1913.5 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27553 14GILGSO 161 1 10.3 27023 11GR RV 151 27055 11GR RV 139 2 124.3 27023 11GR RV 151 27055 11GR RV 139 2 124.3 27023 11GR RV 181 2724 11GR RV 139 1 124.3 27023 11GR RV 181 2724 11GR RV 139 1 124.3 27023 11GR RV 182 2724 11GR RV 139 1 124.3 27023 11GR RV 182 2724 11GR RV 139 1 124.3 27023 11GR RV 139 2724 11GR RV 139 1 129.4 27023 11GR RV 139 2724 11GR RV 139 1 129.5 27023 11GR RV 139 2724 11GR RV 139 1 129.5 27023 11GR RV 139 2724 11GR RV 139 1 129.7 27023 11GR RV 139 2724 11GR RV 139 1 129.7 27023 11GR RV 139 2725 11GR RV 139 1 129.7 27023 11GR RV 127 27523 14GILGSO 161 1 131.5 27023 11GR RV 151 27523 14GILGSO 161 1 131.5 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151 27523 14GILGSO 161 1 10.3 27023 11GR RV 151	7114 113HTH 138 1 CTOPEN 27099 11HARDBG 118 17250 11FALLS 69 0 2 CTOPEN 27099 11HARDBG 118 17250 11FALLS 69 0 2 CTOPEN 27099 11HARDBG 118 17250 11FALLS 69 0 1 CTOPEN 27099 11HARDBG 118 17250 11FALLS 69 0 1 CTOPEN 27099 11HARDBG 118 17952 14HARDG
27029 IIHARDBG ISS Z7100 IIHARDN 138 1 -285.5 27100 IICANAMA 69.0 27260 IIRALAS 69.0 2 -32.0 27100 IICANAMA 69.0 27260 IIRALAS 69.0 2 -32.0 27261 AMTIGOT 345 27563 IARALSOS 161 1 -313.9 27262 IIAR RV 161 27553 IAMTIGOS 161 1 -313.6 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -13.6 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.6 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.6 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.2 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.2 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.2 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.2 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -10.2 27028 IIAR RV 161 27055 IIAR RVR 138 1 -24.2 27028 IIAR RV 162 27055 IIAR RVR 138 1 -28.5 27028 IIAR RV 162 27055 IIAR RVR 138 1 -28.5 27028 IIAR RVR 182 27.44 IIGHTO C 138 2 -16.1 27029 IIARADBG 138 27.40 IIIAHRN 138 1 -28.5 27029 IIARADBG 138 27.40 IIIAHRN 138 1 -28.5 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -13.5 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -13.5 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -13.5 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.9 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV 161 27553 IAMTIGOS 161 1 -58.7 27028 IIAR RV	77013 1138HTH 3451 G.COPAN 27029 114NARDBG 1351 27254 114NARLAG 85.0 2 G.COPAN 27101 11CANALA 69.0 1 14430 BANUIROS 500 1 G.COPAN 27101 11CANALA 69.0 1 27255 114MLEGO 1841 G.COPAN 27254 114MLEGO 1841 G.COPAN 27254 114MLEGO 1842 G.COPAN 27254 114MLEGO 1841 G.COPAN 27254 114MLEGO 1841 G.COPAN 27228 11GR RV 161 2823 10GRNTVAT 183 1 G.COPAN 27228 11GR RV 161 2823 10GRNTVAT 183 1 G.COPAN 27228 11GR RV 161 2823 10GRNTVAT 184 1 G.COPAN 27228 11GR RV 161 2823 10GRNTVAT 185 1 G.COPAN 27228 11GR RV 161 2823 10GRNTVAT 185 1 G.COPAN 27228 11GR RV 161 27228 11GR RV 181 G.COPAN 27229 11GR RV 182 27225 11GR RV 183 G.COPAN 27228 11GR RV 183 G.COPAN 27228 11GR RV 183 G.COPAN 27229 11GR RV 183 G.COPAN 27229 11GR RV 183 2722 11GR RV 183 G.COPAN 27229 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11GR RV 183 2722 11GR RV 183 G.COPAN 27221 11GR RV 183 2722 11
27180 IICANAL 69.0 27260 IIFALLS 69.0 I -32.0 14428 GUNDLAGARAL 69.0 27260 IIFALLS 69.0 I -32.0 14428 GUNDLAGARAL 69.0 27260 IIRALGS 69.0 I 1311.9 17261 IICANARAL 69.0 27260 IIRALGS 69.0 I 1311.9 17261 IICANARAL 69.0 27261 IICANARAL 69.0 27262 IICANARAL 69.0 14420 GUNDLAGARAL 11 11 11 11 11 11 11 11 11 11 11 11 11	27756 11PALLS 69.0 2 C:0pen 27181 11CANAL 69.0 27551 14COLE 7 345 1 C:0pen 77028 11GR NV 161 27055 11COLE 7 345 1 C:0pen 77028 11GR NV 161 27252 14COLE 7 345 1 C:0pen 77028 11GR NV 161 27252 14COLE 7 345 1 C:0pen 77028 11GR NV 161 27255 11GR RN 128 2 Base Gase 27059 11GR RN 128 2 Base Gase 27059 11GR RN 128 1 C:0pen 77028 11GR NV 161 27252 14COLE 5.0 1 Base Gase 27059 11GR NV 161 27252 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27252 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27552 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27552 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27552 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27552 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27552 14COLE 5.0 1 C:0pen 77028 11GR NV 161 27055 11GR RN 128 1 C:0pen 77029 11GR RN 161 27055 11GR RN 167 27055 11GR RN
27180 IICANAL 69.0 27260 IIPALG 69.0 2 -32.0 27051 IAWIGOOT 345 27553 IAMIGOS 161 1 313.9 27051 IAWIGOOT 345 27553 IAMIGOS 161 1 313.5 27052 IIGAR RV 151 27553 IAWIGOS 161 1 313.5 27028 IIGAR RV 151 27553 IAWIGOS 161 1 131.5 27028 IIGAR RV 151 27553 IAWIGOS 161 1 131.5 27028 IIGAR RV 151 27553 IAWIGOS 161 1 131.6 27028 IIGAR RV 151 27553 IAWIGOS 161 1 130.6 27028 IIGAR RV 152 27553 IAWIGOS 161 1 103.6 27028 IIGAR RV 151 27553 IAWIGOS 161 1 103.6 27028 IIGAR RV 151 27553 IAWIGOS 161 1 103.6 27029 IIGUNRR RV 151 27553 IAWIGOS 161 1 100.2.7 27029 IIGUNRR RV 152 2705 IIGAR RV 152 2 1040.6 27029 IIGUNRR RV 152 2705 IIGAR RVR 152 2 144.3 27022 IIGAR RVR 152 27020 IIGAR RVR 152 1 144.3 27022 IIGAR RVR 152 27020 IIGAR RVR 152 1 165.6 27029 IIGAR RVR 152 2702 IIAWIRW 152 1 164.4 27029 IIAWIGOS 152 1100HT RVR 152 1 164.4 27025 IIGAR RVR 152 27126 IIAWIGOS 151 1 115.5 27028 IIGAR RVR 152 27126 IIAWIGOS 151 1 115.5 27028 IIGAR RV 151 27523 IAWIGOS 151 1 157.5 27028 IIGAR RV 151 27523 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27523 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27028 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27027 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27027 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 27027 IIGAR RV 151 27553 IAWIGOS 151 1 150.7 2702	27560 11FNL66 95.0 1 C:0pen 27180 11CNNNL 69.0 27551 14CNL50 95.0 1 C:0pen 27051 14CNL50 95.0 1 Base Case 27055 11GN RNR 138 1 C:0pen 27051 14CNL50 95.0 1 Base Case 27059 11GN RNR 138 1 C:0pen 27051 14CNLS 95.0 1 C:0pen 27058 11GN RN 151 2520 14CNL5 69.0 1 C:0pen 27058 11GN RN 151 2520 14CNL5 69.0 1 C:0pen 27058 11GN RN 151 2520 14CNL5 69.0 1 C:0pen 27058 11GN RN 151 2520 14CNL5 50.0 1 C:0pen 27058 11GN RN 151 2520 14CNL5 50.0 1 C:0pen 27058 11GN RN 151 2520 14CNL5 50.0 1 C:0pen 27058 11GN RN 151 2520 14GNLS 95.0 1 C:0pen 27058 11GN RN 151 27059 11GN RN 151 1 C:0pen 27058 11GN RN 151 27059 11GN RN 151 1 C:0pen 27059 11GN RN 151 27059 11GN RN 151 1 C:0pen 27059 11GN RN 151 27059 11GN RN 151 1 C:0pen 27059 11GN RN 151 27
14445 GUNGBEL SGO 14433 GDATIGOS 560 1 1931.9 27561 14MILSOY 345 27563 14COLE 7 345 1 70.2 27561 14MILSOY 345 27563 14COLE 7 345 1 70.2 27562 14MILSOY 345 27563 14COLE 7 345 1 70.2 27523 11GR RV 161 27553 14MILSOS 161 1 10.3.6 27523 11GR RV 161 27553 14MILSOS 161 1 10.3.6 27523 11GR RV 161 27553 14MILSOS 161 1 10.3.6 27523 11GR RV 161 27553 14MILSOS 161 1 10.3.7 27523 11GR RV 161 27553 14MILSOS 161 1 10.3.7 27523 11GR RV 162 27553 14MILSOS 161 1 10.3.7 27523 11GR RV 162 27553 14MILSOS 161 1 10.3.7 27525 11GR RV 162 27553 14MILSOS 161 1 10.3.7 27525 11GR RV 162 27054 11GR RVR 138 1 124.2 27525 11GR RV 138 2724 11GR RVR 138 1 124.3 27525 11GR RVR 138 2724 11GR RVR 138 1 124.3 27525 11GR RVR 138 2724 11GR RVR 138 1 124.3 27525 11GR RVR 138 2724 11GR RVR 138 1 124.3 27525 11GR RVR 138 2724 11GR RVR 138 1 124.3 27525 11GR RVR 138 2724 11GR RVR 138 1 128.7 27525 11GR RVR 138 2724 11GR RVR 138 1 128.7 27525 11GR RVR 138 2724 11GR RVR 138 1 128.7 27525 11GR RVR 138 2724 11GR RVR 138 1 128.7 27525 11GR RVR 128 2724 11GGR C 138 1 161.0 22677 051 11GR RV 161 27553 14MILGOS 161 1 1919.8 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27525 11GR RV 161 27553 14MILGOS 161 1 169.7 27526 11GR RV 161 27553 14MILGOS 161 1 169.7 27526 11GR RV 161 27553 14MILGOS 161 1 169.7 27527 11GR RV 161 27553 14MILGOS 161 1 169.7 27527 11GR RV 161 27553 14MILGOS 161 1 169.7 27527 11GR RV 161 27553 14MILGOS 161 1 169.7 27527 11GR RV 161 27553 14MILGOS 161 1 169.7 27527 11GR RV 161 27553 14MILGOS 161 1 169.7 27527 11G	14420 BOAVIDSO 500 1 C: Open 120428 BOAVIDSO 500 27553 144112607 145 1 C: Open 27053 11487 RV 161 27055 1148112607 145 1 C: Open 27053 11487 RV 161 27055 11587 RVR 138 1 Base Case 27050 11584126 80.0 2 Base Case 27050 11584126 80.0 2 Base Case 27050 11584126 80.0 2 Base Case 27050 11584126 80.0 1 C: Open 27028 1148 RV 161 14428 8400LMYTE 181 1 C: Open 27028 1148 RV 161 14428 8400LMYTE 500 1 C: Open 27059 1148 RV 161 14428 8400LMYTE 500 1 C: Open 27059 1148 RV 161 14468 870LMYTE 500 1 C: Open 27059 1148 RV 161 27059 1148 RV 181 C: Open 27059 1148 RV 161 27059 1148 RV 181 C: Open 27059 1148 RV 161 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 181 C: Open 27059 1148 RV 181 27059 1148 RV 138 1 C: Open 27059 1148 RV 139 27059 1148 RV 181 27059 1148 RV 138 1 C: Open 27059 1148 RV 181 27059 1148
27561 14MILGOT 345 27563 14MILGOS 161 1 319 8 888 889 880 27028 110R RV 161 27553 14MILGOS 161 1 10.2 69.9 27028 110R RV 161 27553 14MILGOS 161 1 10.5 6 27028 110R RV 161 27553 14MILGOS 161 1 10.5 6 27028 110R RV 161 27553 14MILGOS 161 1 10.2 7 27028 110R RV 161 27553 14MILGOS 161 1 10.2 7 27028 110R RV 161 27553 14MILGOS 161 1 10.2 7 27028 110R RV 161 27095 110R RVR 138 1 10.2 7 27029 110CWRPR 13 2744 111TRTOD 138 1 124.2 27029 110CWRPR 13 2744 111TRTOD 138 1 124.2 27029 110CWRPR 13 2744 111TRTOD 138 1 124.2 27029 110CWRPR 13 2742 110R RVR 138 1 124.2 27029 110CWRPR 13 2742 110R RVR 138 1 124.2 27029 110CWRPR 13 2742 110R RVR 138 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 128.1 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 13 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 14 12 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 14 12 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 18 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 18 2742 110R RVR 13 1 1 124.2 27029 110CWRPR 18 2752 14MILGOS 161 1 119.4 27029 110CWRPR 18 2752 14MILGOS 161 1 1-28.7 27029 110CWRPR 18 2752 14MILGOS 161 1 1-28.7 27029 110CWRPR 161 27523 14MILGOS 161 1 1-28.7 27029 110CWRPR 17 27523 14MILGOS 161 1 1-29.7 27029 110CWRPR 161 27523 14MILGOS 161 1 1-29.7 27029 110CWRPR 17 27523	77755 14COLE 7 345 1 C:Open 77561 14MIGO7 345 77755 14MIGO7 345 7775 14MIGO7
27564 14MILGOT 345 27562 14COLE 7 345 1 732 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	27055 11GR RNR 136 1 27050 11GR/RNR 136 1 27050 11GR RNR 136 1 27050 11G
### 60.2 ### 60	27260 11PALLS 69.0 2 Base Case 27260 11PALLS 69.0 2 Base Case 27260 11PALLS 69.0 1 Base Case 27260 11PALLS 69.0 1 Base Case 27260 11PALLS 69.0 1 Base Case 27261 11PALLS 69.0 1 Base Case 27261 11PALLS 69.0 1 Gropen 27281 11GR KV 161 27261 12PALLS 69.0 1 Gropen 272081 11GR KV 161 2827 14COLE 5 161 1 Gropen 272081 11GR KV 161 2827 14COLE 5 161 1 Gropen 272081 11GR KV 161 2827 14COLE 5 161 1 Gropen 170281 11GR KV 161 2828 14GRETTU 11 1 Gropen 170281 11GR KV 161 2726 11GR KV 138 1 Gropen 270791 11GR KV 161 2726 11GR KV 138 1 Gropen 270791 11GR KV 161 2726 11GR KV 138 1 Gropen 270791 11GR KV 161 2726 11GR KV 138 1 Gropen 270791 11GR KV 161 2726 11GR KV 138 1 Gropen 270791 11GR KV 161 27271 11GR KV 138 1 Gropen 270791 11GR KV 161 27271 11GR KV 138 1 Gropen 270291 11GR KV 138 27271 11GR KV 138 1 Gropen 270291 11GR KV 138 27271 11GR KV 138 1 Gropen 270291 11GR KV 138 27271 11GR KV 138 1 Gropen 270391 11GR KV 138 27271 11GR KV 138 1 Gropen 270391 11GR KV 138 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 151 27271 11GR KV 138 1 Gropen 270391 11GR KV 151 27271 11GR KV 151 272
207028 IIGR RV 161 27553 IAMILGOS 161 1 693.1 261.2 260.23 GOGRATAN IS 26110 OBNIER 138 1 103.6 270.028 IIGR RV 161 27553 IAMILGOS 161 1 103.6 270.028 IIGR RV 161 27553 IAMILGOS 161 1 1012.7 270.28 IIGR RV 161 27553 IAMILGOS 161 1 1012.7 270.28 IIGR RV 161 270.95 IIGR RVR 138 1 124.2 270.28 IIGR RV 161 270.95 IIGR RVR 138 1 124.2 270.28 IIGR RV 161 270.95 IIGR RVR 138 1 124.2 270.28 IIGR RV 161 270.95 IIGR RVR 138 1 124.2 270.28 IIGR RV 162 270.95 IIGR RVR 138 1 124.2 270.28 IIGR RVR 138 272.6 IIGR RVR 138 1 124.2 270.99 IIHARDBO 138 272.0 IIGHIRT 138 1 1-247.2 270.99 IIHARDBO 138 272.0 IIGHIRT 138 1 1-247.2 270.91 IIGHIRT 138 272.0 IIHARDBO 138 1 1 104.4 270.7 IIGHIRT 138 272.0 IIGHIRT 138 1 1-247.2 270.91 IIGHIRT 141 275.3 IAMILGOS 161 1 1-39.3 270.20 IIGHIRT 141 275.3 IAMILGOS 161 1 1-39.3 270.20 IIGHIRT 141 275.3 IAMILGOS 161 1 1-39.3	22250 1104KNL56 69.0 2 Base Case 22079 1104KNRPR 138 1 C:0pen 27028 1104K FV 161 25030 018FNDL6 69.0 1 C:0pen 26031 0104KNRP 138 25031 0104KNRPR 138 1 C:0pen 26031 0104KNY 138 25031 0104KNY 151 1 C:0pen 27038 1104K FV 161 18428 040UMNTE 161 1 C:0pen 27038 1104K FV 161 18428 040UMNTE 161 1 C:0pen 13024 M:FRKFT 230 114468 040UMNTE 500 1 C:0pen 13024 M:FRKFT 230 114468 040UMNTE 500 1 C:0pen 27039 1104KNP 138 27055 1104K RV 138 1 C:0pen 27039 1104K FV 161 27055 1104K RV 138 1 C:0pen 27039 1104KNP 138 27055 1104K FV 138 1 C:0pen 27039 1104KNP 138 27057 1104KT 138 1 C:0pen 27037 1104KNP 138 27057 1404KT 138 1 C:0pen 27037 1104KNP 138 27057 1404KR 138 1 C:0pen 27037 1404KNP 138 27
27028 110R RV 161 27853 14MTL805 161 1 151.4 260.13 GGRENTHN 118 26110 08MTRR 138 1 1103.6 27028 110R RV 161 27553 14MTL805 161 1 -37.5 27028 110R RV 161 27553 14MTL805 161 1 1012.7 27028 110R RV 161 27553 14MTL805 161 1 1012.7 27028 110R RV 161 27095 10R RV 138 1 124.2 27028 110R RV 161 27095 110R RV 138 1 124.3 27028 110R RV 161 27095 110R RV 138 1 124.3 27028 110R RV 161 27095 110R RV 138 2 124.2 27028 110R RV 161 27095 110R RV 138 1 124.3 27029 110R RV 130 2726 110R RV 138 2 124.3 27029 110R RV 130 2726 110R RV 138 1 124.3 27029 110R RV 130 2726 110R RV 138 1 124.3 27029 110R RV 130 2726 110R RV 138 1 124.3 27029 110R RV 130 2726 110R RV 138 1 124.3 27028 110R RV 128 2726 110R RV 138 1 128.3 27028 110R RV 128 2726 110R RV 138 1 128.3 27028 110R RV 128 2726 110R RV 138 1 128.3 27028 110R RV 161 27553 14MTL805 161 1 194 4 27028 110R RV 161 27553 14MTL805 161 1 198.3 27028 110R RV 161 27553 14MTL805 161 1 198.3 27028 110R RV 161 27553 14MTL805 161 1 198.3	27079 1104/RRF 138 1
-15.4 27028 11GR RV 161 27553 14411605 161 1 27028 11GR RV 161 27553 14411605 161 1 27028 11GR RV 161 27553 14411605 161 1 2819.4 2819.7	2726 1125LALE 6.0 1 8405 Cade 1 2010 addaRTHN 138 1200 addaRTHN 13
26013 080RRTRN 138 26110 08NTRR 118 1 103.6 27028 110R RV 161 27553 144F15055 161 1 -58.9 21924 N.FRKFT 250 11925 N.FRKFT 128 1 1012.7 21018 BRHIPP B 500 18468 BVOLUNTS 500 1 1214.2 21018 BRHIP B 500 18468 BVOLUNTS 500 1 1310.6 27029 11GUR RV 161 27095 110R RVR 138 1 144.3 27028 11GR RV 161 27095 110R RVR 138 1 144.3 27028 11GR RV 161 27095 110R RVR 138 1 144.3 27028 11GR RV 162 27095 110R RVR 138 1 144.3 27029 11GR RV 189 27724 110H RV 138 2 124.2 27029 11GR RVR 189 27724 110H RV 138 1 148.6 27029 11HARDBG 18 27120 11HARDW 138 1 -285.5 27029 11HARDBG 188 27120 11HARDW 138 1 -285.5 27029 11HARDBG 188 27120 11HARDW 138 1 12.2 27029 11HARDG 188 27120 11HARDW 138 1 12.2 27029 11GR RV 161 27553 14HTLSOS 161 1 19.7 27028 11GR RV 161 27553 14HTLSOS 161 1 1-28.9	26218 08HKTNOT 130 1 C:Open 26013 08ORKTTN 131 26252 14COLE 5 12 1 C:Open 77028 11GR WV 161 18422 8HONTOM 50 1 C:Open 17024 M:FRKTT 230 18462 9VOLUNTE 161 1 C:Open 18057 BRHPP 1 S00 18462 9VOLUNTE 50 1 C:Open 18057 BRHPP 1 S00 19242 20BLT C 161 1 C:Open 27079 11GLWF K113 27055 11GR RWR 138 1 C:Open 27078 11GR RV 161 24689 05WHTN 138 1 C:Open 27078 11GR RV 161 24689 05WHTN 180 1 C:Open 27078 11GR RV 161 24689 05WHTN 180 1 C:Open 27078 11GR RV 161 24689 05WHTN 180 1 C:Open 27078 11GR RV 161 24689 05WHTN 180 1 C:Open 27078 11GR RV 151 24689 05WHTN 180 1 C:Open 27078 11GR RV 151 24689 05WHTN 180 1 C:Open 27078 11GR RV 151 24689 05WHTN 180 1 C:Open 27078 11GR RV 130 2469 05WHTN 180 1 C:Open 2709 11MKNDB0 130 27071 11GHTTN 180 1 C:Open 2709 11MKNDB0 130 27071 11GHTN 180 1 C:Open 2709 11MKNDB0 130 27071 11GHTNR 180 1 C:Open 2709 11MKN
27028 11QR KV 161 27553 14W11505 161 1 -57.5 27028 11QR KV 161 27553 14W11505 161 1 1012.7 27028 11QR KV 161 27553 14W11505 161 1 1012.7 28028 11QR KV 161 27095 11QR KV 138 1 1244.2 27028 11QR RV 161 27095 11QR RVR 138 1 1244.3 27028 11QR RV 161 27095 11QR RVR 138 1 124.2 27028 11QR RV 161 27095 11QR RVR 138 1 124.2 27028 11QR RV 161 27095 11QR RVR 138 1 124.2 27028 11QR RVR 138 27126 11QR RVR 138 1 124.2 27029 11HARDBO 139 27126 11QR RVR 138 1 124.2 27029 11HARDBO 139 27126 11QR RVR 139 1 124.2 27029 11HARDBO 139 27126 11QR CO 138 1 124.2 27025 11QR RVR 138 27126 11QR CO 138 1 124.2 27025 11QR RVR 138 27126 11QR CO 138 1 124.2 27028 11QR RV 161 27553 14W11505 161 1 139.8 27028 11QR RV 161 27553 14W11505 161 1 194.4 27028 11QR RV 161 27553 14W11505 161 1 193.7 27028 11QR RV 161 27553 14W11505 161 1 194.4 27028 11QR RV 161 27553 14W11505 161 1 193.7	7252 14COLE 5 161 1 C:Open 77028 11GR RV 161 14428 86097TGM 500 1 C:Open 137028 11GR RV 161 14428 86097TGM 500 1 C:Open 137028 11GR RV 161 14428 970LMTE 161 1 C:Open 14648 970LMTE 162 1 C:Open 14649 970LMTE 182 1 C:Open 77028 11GR RV 162 1 C:Open 77028 11GR RV 162 1 C:Open 77028 11GR RV 162 1 C:Open 77028 11GR RV 161 1 C:Open 77028 11GR RV 162 1 C:Open 77028 11GR RV 162 1 C:Open 77029 11GR RV 163 1 C:Open 77029 11GR RV 163 1 C:Open 77029 11GR RV 163 1 C:Open 77029 11GR RV 178 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
11924 W.FRKFT 270 11925 W.FRKFT 218 1 1012.7 11924 W.FRKFT 270 11925 W.FRKFT 218 1 1012.7 12018 BRINDE S 00 18468 BVOLUMTE SOD 1 1214.2 12025 LIGHT S 00 10468 BVOLUMTE SOD 1 1210.6 17079 LICLWRPR 138 27144 LITTETOD 138 1 240.6 17079 LICLWRPR 138 27126 LIGHT RW 138 2 144.2 17079 LICLWRPR 138 27126 LIGHT RW 138 2 144.2 17079 LICLWRPR 138 27126 LIGHT RW 138 2 144.2 17079 LIGHT RW 138 27126 LIGHT RW 138 2 144.8 17079 LIGHT RW 138 27126 LIGHT RW 138 1 144.8 17079 LIGHT RW 138 27126 LIGHT RW 138 1 1 141.2 17079 LIGHT RW 138 27126 LIGHT RW 138 1 1 141.0 17079 LIGHT RW 138 27126 LIGHT C 138 1 1 141.0 17079 LIGHT RW 138 27126 LIGHT C 138 1 1 151.0 17078 LIGHT RW 138 27126 LIGHT C 138 1 1 151.0 17078 LIGHT RW 118 27126 LIGHT C 138 1 1 151.0 17078 LIGHT RW 118 27126 LIGHT C 138 1 1 151.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 131.6 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 11.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 11.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 11.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 11.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT RW 118 2755 LIGHT C 138 1 1 1.0 17078 LIGHT L 138 L 13	26857 10NEMTON 161 1 C:Open 13274 M.FKKFT 230 118458 SVOLUNTE 500 1 C:Open 13274 M.FKKFT 230 118468 SVOLUNTE 500 1 C:Open 18657 BHRDP 1 500 22248 20BLTT C 181 1 C:Open 27029 11CWPR 138 27025 110K RW 138 1 C:Open 27029 11CWPR 138 27025 110K RW 138 1 C:Open 27029 11CWPR 138 27025 110K RW 138 1 C:Open 27029 11CWPR 139 27025 110K RW 138 1 C:Open 27029 11CR FV 150 27020 110KHTT 65 0 1 C:Open 27029 11CR FV 150 27020 110KHTT 65 0 1 C:Open 27029 11CR FV 130 27020 110KHTT 81 1 C:Open 27029 11CR FV 130 27020 110KHTT 81 1 C:Open 27029 11CR FW 130 27020 110KHTT 81 1 C:Open 27029 11CR FW 130 27020 110KHTT 81 1 C:Open 27029 11CR FW 130 27020 110KHTT 81 1 C:Open 27029 11CR FW 130 27020 11CK 138 2 C:Open 27029 11CR FW 130 27020 11CK 138 1 C:Open 27029 11CR FW 150 27020 11CK 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27029 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 11CR FW 151 27020 14CC FW 138 1 C:Open 27029 17CR FW 151 27020 14CC FW 138 1 C:Open 27029 17CR FW 151 27020 14CC FW 138 1 C:Open 27029 17CR FW 151 27020 14CC FW 151 2702
11913 W. FREFT 200 11512 W. FREFT 138 1 1012.7 1012.7 1010.6 1010	18428 BWONTOOM 500 1 C:Open 13934 W.FKFFT 230 18469 STOLLNTE 601 1 C:Open 18459 BBNP P B 500 18248 208LTT C 161 1 C:Open 27079 11CIVRRR 138 27095 11GR RVR 138 1 C:Open 77078 11GR FV 161 24649 GSTRATYES 0 1 C:Open 77028 11GR FV 161 24649 GSTRATYES 0 1 C:Open 77028 11GR FV 161 24649 GSTRATYES 0 1 C:Open 77028 11GR FV 161 27054 11GR STL 138 1 C:Open 77028 11GR FV 138 24679 LOGREDY 138 1 C:Open 77039 11GR FV 138 27054 11GR STL 138 1 C:Open 77039 11GR FV 138 27054 11GR STL 138 1 C:Open 77039 11GR FV 138 27054 11GR STL 138 1 C:Open 77039 11GR FV 138 27055 14GG ST 138 1 C:Open 77059 11GR FV 138 27055 14GG ST 138 1 C:Open 77059 11GR FV 138 27055 14GG ST 138 1 C:Open 77059 11GR FV 138 27055 14GG ST 138 1 C:Open 77059 11GR FV 158 27055 14GG ST 138 1 C:Open 77059 11GR FV 158 27059 14GG
1214 2 18457 BRBP E SOO 18468 EVOLUNTS SOO 1 1810.6 27079 ILCURREN 138 27144 1117F70F 138 1 240.6 27079 ILCURREN 138 27144 1117F70F 138 1 240.6 27078 ILCURREN 138 27144 1117F70F 138 1 2468 O SRICHCTGS-0 24690 OSYNERTH 69.0 1 2468 O SRICHCTGS-0 24690 OSYNERTH 69.0 1 2468 O SRICHCTGS-0 24690 OSYNERTH 69.0 1 240.0 27052 ILSWITH 345 27124 110HTO C 138 2 27052 ILSWITH 345 27124 110HTO C 138 1 240.0 27052 ILSWITH 345 27124 110HTO C 138 1 27053 ILSWITH 345 27124 110HTO C 138 1 27053 ILSWITH 345 27124 110HTO C 138 1 2267.0 2267.0 OSYNEROCT 762 27129 110HTO C 138 1 2267.0 OSYNEROCT 762 27129 110HTO C 138 1 2267.0 OSYNEROCT 762 12129 110HTO C 138 1 2267.0 OSYNEROCT 762 12129 140C165 161 1 27053 ILSWITH 781 27125 14WILGOS 161 1 27053 ILSWITH 781 27553 14WILGOS 161 1 27053 ILSWITH 27553 14WILGOS 161 1 27054 27054 ILSWITH 27553 14WILGOS 161 1 27054 27054 17WILGOS 161 1 27054 27054 17WILGOS 161 1	1846 9'OLUNTE 121 1 C:Open 18457 BHBUP B SOO 2284 280LT C 18 1 C:Open 1857 BHBUP 1 SOO 2284 280LT C 18 1 C:Open 77079 11CUNPP 1 SOO 2284 280LT C 18 1 C:Open 77079 11CUNPP 1 SOO 28059 11GR RW 181 1 C:Open 77078 11GR RW 181 1 C:Open 77028 11GR RW 181 1 C:Open 77029 11GR RW 182 1 C:Open 77021 11GR RW 182 1 C:Open 77021 11GR RW 183 1 C:Open 77029 11GR RW 183 1 C:Open 77029 11GR RW 183 1 C:Open 77029 11GR RW 183 1 C:Open 77039 11GR RW 183 1 C:Open 77038
77079 11C/WPR 136 27144 11TIPTOR 136 1 1810.6 77079 11C/WPR 136 27144 11TIPTOR 136 1 240.6 77078 11GR RU 161 27095 11GR RUR 138 1 124.3 7466 GRICHETTOR 0. 1619 138 2 124.2 7466 GRICHETTOR 0. 24680 GSHWITH 69.0 1 82.0 7466 GRICHETTOR 0. 24680 GSTREATY69.0 1 82.0 7466 GRICHETTOR 0. 24680 GSTREATY69.0 1 82.0 7466 GRICHETTOR 138 2 124.1 16HTH 138 1 148.8 77015 11GHTTH 345 27142 11GHTH 138 1 148.6 77019 11HARDBG 138 2710 11HARDW 138 1 148.6 77019 11HARDBG 138 2710 11HARDW 138 1 148.6 77019 11HARDBG 138 2710 11HARDW 138 1 148.6 77019 11GHTM 745 2710 11HARDW 138 1 146.0 77019 11GHTM 745 2710 11HARDW 138 1 146.0 77019 11GHTM 745 2710 11HARDW 138 1 146.0 77011 14HIGGG 141 1 131 5 77011 11GHTW 161 2755 14HIGGG 161 1 171.6 77011 11GR RV 161 2755 14HIGGG 161 1 171.6 77011 11GR RV 161 2755 14HIGGG 161 1 171.6 77011 11GR RV 161 2755 14HIGGG 161 1 171.6	114468 WOLLWIFE 500 1 CICQPEN 1875 WEBEN 1 500 27245 SIGNET CT 111 CICQPEN 77079 SIGNETRER I 500 27459 SIGNET RYN 138 1 CICQPEN 77028 SIGNET IV 161 24659 SIGNETARYS 0 1 CICQPEN 77028 SIGNET IV 161 24659 SIGNETARYS 0 1 CICQPEN 74660 SIGNETCHOTS 0 CICQPEN 74660 SIGNETCHOTS 0 CICQPEN 74660 SIGNETCHOTS 0 CICQPEN 77028 SIGNET IV 161 27054 SIGNET SIR 1 CICQPEN 77012 SIGNET IV 138 27054 SIGNET SIR 1 CICQPEN 77012 SIGNET IV 138 27054 SIGNET SIR 1 CICQPEN 77012 SIGNET IV 138 27054 SIGNET SIR 1 CICQPEN 77019 SIGNET SI
27028 11GR RV 161 27095 11GR RVR 138 1 240.6 27028 11GR RV 161 27095 11GR RVR 138 1 124.2 27028 11GR RV 161 27095 11GR RVR 138 1 124.2 2466 G GRICHTEFS.0 2669 GSTREATYS9.0 1 82.0 2466 G GRICHTEFS.0 2669 GSTREATYS9.0 1 82.0 27095 11GR RVR 139 27126 11GHTN 138 1 164.8 27099 11HARDER 139 27126 11GHTN 139 1 1287.2 27099 11HARDER 139 27126 11GHTN 139 1 1287.2 27059 11HARDER 139 27126 11GHTN 139 1 164.8 27059 11HARDER 139 27126 11GHTN 139 1 164.8 27059 11HARDER 139 27126 11GHTN 139 1 161.9 27051 11GR RVR 138 27126 11GHTN 139 1 161.9 27051 11GR RV 161 27553 14HILSOS 161 1 19.4 27052 11GR RV 161 27553 14HILSOS 161 1 59.7 27053 17GR RV 161 27553 14HILSOS 161 1 59.7 27053 17GR RV 161 27553 14HILSOS 161 1 59.7 27053 17GR RV 161 27553 14HILSOS 161 1 59.7 27054 17GR RV 161 27553 14HILSOS 161 1 59.7 27054 17GR RV 161 27553 14HILSOS 161 1 59.7 27054 17GR RV 161 27553 14HILSOS 161 1 59.7 27054 17GR RV 161 27553 14HILSOS 161 1 59.7 27054 17GR RV 161	27055 110R RW 138 2 C:0pen 77025 110R RW 161 27055 110R RW 138 1 C:0pen 77025 110R RW 161 27055 110R RW 161 27054 110R RW 161 27054 110R RW 136 27054 110R RW 136 27057 110R RW 161 27057 110R R
2002 1148 RV 151 27055 1108 RVR 138 1 244.3 27028 1148 RV 151 27055 1108 RVR 138 2 124.3 2466 OSRICHTT9-0 2669 OSRWHTH 69.0 1 82.0 27055 1148 RVB 139 27126 1108 RV 138 2 124.3 27052 1158 RVB 139 27126 1108 RVB 138 1 183.1 2665 10ABRWH 139 27126 1108 RVB 138 1 183.1 27052 1158 RVB 138 27126 11148 RVB 138 1 183.2 27052 1148 RVB 138 27126 11148 RVB 138 1 161.0 22617 OSRPROCT 765 23199 OSWPROCT 138 1 161.0 22617 OSRPROCT 765 23199 OSWPROCT 138 1 161.0 22617 OSWPROCT 765 23199 OSWPROCT 138 1 161.0 22617 OSWPROCT 765 23199 OSWPROCT 138 1 161.0 27058 1108 RVB 151 27553 148 HLGOS 161 1 197.5 27058 1108 RV 161 27553 148 HLGOS 161 1 58.3 27058 1108 RV 161 27553 148 HLGOS 161 1 58.3 27058 1108 RV 161 27553 148 HLGOS 161 1 58.3 27058 1108 RV 161 27553 148 HLGOS 161 1 58.3	27055 110R RVR 1181 2 C:Open 27028 114R RV 141 142 1 C:Open 27028 114R RV 1451 2 C:Open 27028 114R RVR 135 2 C:Open 27029 114R RVB 135 2 C:Ope
2466 GRICHCTG9.0 2469 GSTWATTG 69.0 1 2466 GRICHCTG9.0 2469 GSTWATTG9.0 1 2466 GRICHCTG9.0 2469 GSTWATTG9.0 1 262.0 27002 11981TH 345 2714 11891TH 138 1 246.1 2661 JOARRYH 138 2754 11891TH 138 1 248.5 27003 1140000 138 27100 1140000 138 1 248.5 27003 1140000 138 27100 1140000 138 1 248.5 27003 1140000 138 27100 1140000 138 1 248.5 27003 1140000 138 27100 1140000 138 1 241.0 2	24699 STRRAYYES 0. 1 C:Open 7466 OSR:CHCTGS 0. 24690 CSNHITH 69.0 1 C:Open 7466 OSR:CHCTGS 0. 27094 1245 LOGHTY 138 1 C:Open 77012 115HTH 145 C. 27094 COPEN 77012 115HTH 145 C:Open 77012 115HTH 145 C:Open 77012 115HTH 145 C:Open 77012 115HTH 145 C:Open 77019 114NCDBG 118 77012 115HTH 181 C:Open 77019 114NCDBG 118 77012 116HTH 181 C:Open 77019 114NCDBG 118 77012 116HTH 181 C:Open 77019 114NCDBG 118 77015 114HTH 181 C:Open 77019 114NCDBG 118 77019 114NCD 77019 114NCDBG 118 77019 114NCD 77019 114NC
7466 GENTHERTE O 2500 GETTARTY 6:0 1 62.0 77005 IIGR RWR 139 27124 IIGHTH 139 1 164.8 77015 IIGR RWR 139 7742 IIGHTH 139 1 188.6 77009 IIGRADBRAN 139 7543 IGHTHWIN 139 1 287.2 77009 IIGRADBRAN 139 7746 IIGRADBRAN 139 1 287.2 77009 IIGRADBRAN 139 7746 IIGRADBRAN 139 1 288.5 77009 IIGRADBRAN 139 7746 IIGRAD 139 1 161.0 77009 IIGRADBRAN 139 7746 IIGRAD 139 1 191.4 77561 IGHAIR RW 152 77553 IGHTLSOS 161 1 191.8 77028 IIGR RW 161 77553 IGHTLSOS 161 1 17.7 77028 IIGR RW 161 77553 IGHTLSOS 161 1 17.7 77028 IIGR RW 161 77553 IGHTLSOS 161 1 17.7 77028 IIGR RW 161 77553 IGHTLSOS 161 1 156.7	2459 CONNITIN 59.01 C. Open 7466 GENCHICTS. O. 2007-201-201-201-201-201-201-201-201-201-201
27055 LIGR RUR 138 27124 LIGHUR C 138 2 164.8 2661 LOADBERN 138 2757 LIGHUR 138 1 188.1 2765 LIANZERG 138 27100 LIANZER 138 1 287.2 27059 LIANZERG 138 27100 LIANZER 138 1 288.5 27059 LIANZER LOS 138 27104 LIANZER 138 1 161.0 22617 GENROCT 765 21109 GENROCT 765 211	2775 110HTO C 138 1 C:Open 27035 11GR KWR 138 2689 10GRNDW1 138 1 C:Open 27032 11SHTH 345 27142 11SHTH 138 1 C:Open 27032 11SHTH 345 27142 11SHTH 138 1 C:Open 27039 11HARDBG 138 27145 11SHTH 138 1 C:Open 27039 11HARDBG 138 27355 14GHLGGG 188 2 C:Open 27679 14HARDBG 138 27553 14GHLGGG 181 1 C:Open 27541 14HIGGG 345 27553 14GHLGGG 181 1 C:Open 27048 11GR FV 161 27059 11GHR
2001 115MITH 346 27142 115MITH 138 1 -181.1 2001 115MITH 346 27142 115MITH 138 1 188.6 27059 114ARDBH 138 2750 114ARDH 139 1 -287.5 27059 114ARDBH 138 27100 114ARDH 139 1 -285.5 27059 116R RW R 138 27156 110HOC 138 1 161.0 27051 11GR RW R 138 27156 110HOC 138 1 191.6 27058 11GR RW 161 27553 14MI2605 161 1 1319.8 27058 11GR RW 161 27553 14MI2605 161 1 175.2 27058 11GR RW 161 27553 14MI2605 161 1 158.0 27058 11GR RW 161 27553 14MI2605 161 1 158.7 27058 11GR RW 161 27553 14MI2605 161 1 158.7 27058 11GR RW 161 27553 14MI2605 161 1 158.7 27058 11GR RW 161 27553 14MI2605 161 1 158.7	118 2794 1108 571 1181 1 C:Open 27012 1158/TTH 345 118 27142 1198/TTH 1381 1 C:Open 27012 1158/TTH 1381 1 C:Open 27019 114RADB0 118 118 27142 1198/TTH 1381 1 C:Open 27019 114RADB0 118 118 27145 110HCT C 118 2 C:Open 27019 110R PUR 138 11 C:Open 27519 110R PUR 138 11 C:Open 27519 110R PUR 138 11 C:Open 2751 148/1507 145 145 2755 148/1505 161 1 C:Open 27018 110R PU 151 152 2752 1400LE 7 345 1 C:Open 27018 110R PU 151 151 2752 1400LE 7 351 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 138 1 C:Open 27018 110R PU 151 151 27079 110L/PUR 151 2 C:Open 27018 110R PU 151 27079 110L/PUR 151 2 C:Open 27018 110R PU 151 2 C:Open 27018 110R
266C1 IOABBRWN 138 27617 I4HBRDR4 138 1 188.6 77099 I1HARDBG 138 27010 I1HARDN 138 1 1285.5 77099 I1HARDBG 138 27100 I1HARDN 138 1 161.0 77091 IHARDBG 138 27100 I1HARDN 138 1 161.0 77051 IAHLBG 785 23100 SKRPRCCT 138 1 194.4 77551 I4HIRG 785 23100 SKRPRCCT 785 1 191.5 77058 I1GR RV 161 27553 I4HILGOS 161 1 17.5 77058 I1GR RV 161 27553 I4HILGOS 161 1 563.9 77058 I1GR RV 161 27553 I4HILGOS 161 1 563.9	145 2617 100RNDW 138 1 C:Open 26661 100ABRNN 138 134 274 110HUTH 188 1 C:Open 27099 114MRDBG 138 134 270-28 114MRDBG 138 138 271-28 110HUT C 138 2 C:Open 27099 114MRDBG 138 138 275-28 106HUTG 138 2 C:Open 270-28 10G RVR 139 134 275-28 14GHLGOS 161 1 C:Open 275-31 14MLGOS 765 14K 138 275-28 14GHLGOS 161 1 C:Open 270-38 11GR RV 161 182 275-31 14GURPR 138 1 C:Open 270-38 11GR RV 161 148 270-28 11GH RV 161 148 270-28 270
27099 11HARDBG 138 27100 11HARDBW 138 1 -2887.2 27009 11HARDBG 138 27100 11HARDBW 138 1 -2885.5 27009 11HARDBG 138 27100 11HARDBW 138 1 1 151.0 22617 05HRR RW 138 27126 11OHIO C 138 1 1 151.0 227028 11GR RW 161 27553 14HILGOS 161 1 131.6 27028 11GR RW 161 27553 14HILGOS 161 1 197.5 27028 11GR RW 161 27553 14HILGOS 161 1 183.1	345 2742 118MTH 138 1 C:0pen 27099 11MARDBG 138 118 27122 118MTH 345 1 C:0pen 27099 11MARDBG 138 118 27125 110HIO C 138 2 C:0pen 27099 11MARDBG 136 146 27095 11MARDBG 138 148 27155 14WILBGOS 161 1 C:0pen 27048 114RIGGO 345 345 27563 14WILBGO 161 C:0pen 27048 114RIGGO 345 148 27552 14COLE 5 161 1 C:0pen 27048 114RIGGO 345 148 27552 14COLE 5 161 1 C:0pen 27048 110H W 161 148 27091 110H W 161 149 27091 110H
27099 11HARDB0 138 27100 11HARDN 138 1 -285.5 27095 11GR RVR 138 27126 11OHIO C 138 1 151.0 22617 05EPROT 765 23190 05PROCT 138 1 194.4 27551 14H11607 345 27563 14H11605 161 1 319.8 27028 11GR RV 161 27553 14H11605 161 1 319.8 27028 11GR RV 161 27553 14H11605 161 1 63.1	345 27012 IISMITH 345 I C:0pen 27099 IIMARDB0 138 118 27124 IIOHTO C 138 2 C:0pen 27019 IIARRDB0 139 134 5225 1058 1058 1058 1059 118 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 1255 148 125 1 C:0pen 27028 119R FV 161 151 27029 1198 FV
27095 JIGR RVR 138 27126 110HIO C 138 1 161.0 27551 GNERROCT 756 2310 08RRECCT 138 1 191.4 27551 14WILSGY 745 27553 14WILSGS 161 1 191.8 27028 JIGR RV 161 27553 14WILSGS 161 1 17.5 27028 JIGR RV 161 27553 14WILSGS 161 1 58.3 27028 JIGR RV 161 27553 14WILSGS 161 1 58.3	138 27126 110HIO C 138 2 C:0gen 27095 130R RVR 139 345 2295 0580PRN 138 1 C:0gen 2751 058RPOGT 765 1161 2755 14R12607 145 146 27563 1400L8 7 345 1 C:0gen 77513 110R RV 161 145 1755 1400L8 7 145 1 C:0gen 77038 110R RV 161 145 77079 110LVRRR 138 1 C:0gen 77038 110R RV 161 145 77079 110LVRRR 138 1 C:0gen 77038 110R RV 161 145 77079 110LVRRR 138 1 C:0gen 77038 110R RV 161
05KPROCT 765 21300 05KPROCT 130 1 194.4 14M150C 3145 27553 14M150S 161 1 319.8 110R RV 161 27553 14M150S 161 1 -97.5 110R RV 161 27553 14M150S 161 1 -58.9 110R RV 161 27553 14M150S 161 1 -58.9	345 22987 055870RNN 138 1 C:0pen 22617 05NRROGT 765 161 27553 148TL805 161 1 C:0pen 27058 110R KV 161 345 27563 1400L6 3451 1 C:0pen 27058 110R KV 161 161 27552 1400L6 5 161 1 C:0pen 27058 110R KV 161 118 27079 110LVRRR 138 1 C:0pen 27058 110R KV 161
110R RV 161 27553 1400LE 7 445 1 -113.5 - 110R RV 161 27553 14M12605 161 1 -17.5 - 110R RV 161 27553 14M12605 161 1 -37.5 - 110R RV 161 27553 14M12605 161 1 -58.9 - 110R RV 161 27553 14M12605 161 1 -58.9 - 110R RV 161 27553 14M12605 161 1 -58.9 - 110R RV 161 27553 14M12605 161 1 -58.9 -	161 27553 14WILBOS 161 1 C:Open 77561 14WILBO7 345 345 27563 14COLE 7345 1 C:Open 27028 11GR W 161 151 27552 14COLE 5 161 1 C:Open 27028 11GR W 161 139 27073 11GUNRR 138 1 C:Open 77028 11GR WV 161 139 27073 11GUNRR 138 1
110R RV 161 27553 14M1GOS 161 1 319-8 110R RV 161 27553 14M1GOS 161 1 -37-5 110R RV 161 27553 14M1GOS 161 1 -58-9 110R RV 161 27553 14M1GOS 161 1 -58-9 110R RV 161 27553 14M1GOS 161 1 -58-9	345 27563 14COLB 7 345 1 C:Open 27028 11GR RV 161 161 27552 14COLE 5 161 1 C:Open 27028 11GR RV 161 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161
110R RV 161 27553 14F12605 161 1 -37.5 110R RV 161 27553 14F12605 161 1 -58.9 110R RV 257553 14F12605 161 1 -58.9	161 27552 14COLE 5 161 1 C:Open 27028 11GR RV 161 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161
110R RV 161 27553 14ML505 161 1 63.4 110R RV 161 27553 14ML505 161 1 58.9 - 242.9 - 242.9 - 242.7 -	138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161
11GR KV 161 2/555 14812505 161 1 1-242.4	
	138 26857 10NEWIVE 161 1 C:Open 27028 11GR RV 161
	345 27142 11SMITH 138 1 BASE
1 1831.9	345 27012 11SMITH 345 1 BASE CARE
70.2	27045 1108 8VR 138 2 Base Case
	161 27095 11GR RVR 138 1 Base Case
11GR RV 161 27553 14HIL9O5 161 1	3 5 161 27564 14NATALS 161 1 C:Open 27028 11GR RV 161
27028 11GR RV 161 27553 14WILSOS 161 1 -175.6	27564 14NATALS 161 1 C:Open 27028 11GR RV 161
n 31773 ST FRANC 345 31774 ST FRANC 138 1 1012,7 1730,5	500 18428 8MONTGOM 500 1 C:Open 31773 8T FRANC 345
8PHIPP B 500 18468 8VOLUNIE 500 1 1214.2	
8MBNP 1 500 18468 BVOLUNTE 500 1 1810.6	B 500

Constitution of the second

60.841	17.105	14.595	109.94\$	\$65.05	186.55	32.264	38.738	18.10\$	39.77	39.81	22.641	29.144	14.381	192.63\$	187.791	29.541	12.174	108.44	17.134	17.071	27.451	27.661	25.534	74.694	169.6	3.384	31.334	39.574	18.146	1.864		70.334	14 34	20.961	15.74%	11.64%	11.954	26.831	21.224	33.614	22.97	25.234	11.491	4.134	1,864	1.384		90.251	23.414	18.384	26.324	22.78%	20.494	14.651	25.324	17.5
		74.6 1		-113.3	-47.7	101.6	-121:9			-257.6	-33.6	94.8	120.0		_	•	2.92-						21.8	11.4	91.6	-378.2	-75.1	- 90.2		1730.5		74.6		136.9	781.2	94.8	-259,0	-421.3	68.2	-279.6	343.7	-73.7		199.9	1/30.5	-195.8	i	74.6	101.6	-36.2	137.5	259.3	94.8	-121.9	-104.3	
166.4	-141.4	-164.4	6.69	-117.1	-49.5	97.5	-110.3	98.7	-242.4	-240.7	-36.7	88.8	113.8	-4.8	-1.2	-89.2	4.4.4	7.67			43.5	-235.1	4.6	37.7	75.4	-349.8	-7.1	46.3		1012.7		70.2	6.6.0	143.3	835.1	88.8	-242.4	-235.1	43.5	-33.7	186.5	46.3		123.5	1012.7	-114.6		70.2	5.79	-36.7	143.3	-242.4	-240.7	-110.3	-68.4	
-0.06179	0.07628	0.01655	0.05752	0.03780	0.01775	-0.03564	-0.06374	0.01826	-0.07836	-0.07836	0.01265	0.02243	2010.0	-0.02618	0.02618	-0.06374	-0.02194	-0.02194			0.03629	-0.18747	0.01334	-0.02788	0.18547	-0.02840	-0.06719	-0.13356		0000	0.0006.0	0.03795	0.03781	-0.01677	-0.13327	0.01137	-0.03139	-0.20590	0.02487	-0.24428	0.15193	-0.10384		0.05567	0.50000	-0.05567		0.04786	0.01861	0.00145	-0,01816	-0.05053	-0.05053	-0.02892	-0.04154	
197.6	-164.2	-280.0	132.2	-199.5	-71.B	222.9	-216.9	172.0	-307.3	-306.0	-189.3	171.9	0 0	5.85	57.4	-216.0	5.86	-58.5	-307.3	-306.0	142.2	-557.4	51.8	0.96-	8.7.6c	-440.0	-168.8	-242.2	132.2	132.2		132.2	132.2	176.0	1731.4	171.9	-307.3	-306.0	142.2	-358.9	597.8	-168.8	-358.9	334.3	1730.5	-334.6		132.2	171.8	-189.3	176.0	-307.3	-306.0	-216.9	-154.1	
1.99.1	-168.2	-281.7	124.2	-206.8	-74.7	232.0	104.8	167.6	-287.2	-285.5	-181.1	161.0	100.7	-13.9	7.9	-184.2	-20.0	437.5	-242.4	-240.7	88.3	-313,5	30.0	26.1	319.8	-410.2	6.85-	-37.5	70.2	6.69.6	1012.7	124.3	124.2	188.6	1831.9	161.0	-287.2	-285.5	83.1	-113.1	319.8	-58.9	-33.7	184.5	1012.7	1012.7		124.3	124.2	-181.1	188.6	-287.2	-285.5	-205.3	-101.1	
27017 11ARNOLD 161 27023 11DELVIN 161	27110 11LR TAP 138 29387 20JKSMIT 138	27105 11KENTON 138 29566 ZOSPURLK	C:Open 27028 11GR RV 161 27095 11GR RVK 138 1	29386 20JKSMIT 161 29500 20POWELL	27113 11LOUDON 138 29202 20AVON	29386 20JKSMIT 161 29500 20POWELL	C.Open 27095 11GR RVR 138 27126 11OHIO C 138 2	JIIOI BBAD CRR 300 JIIOI SOCKASSE 29432 20MAYSVJ 138 29566 20SPURLK	27099 11HARDBG 138 27100 11HARDN	27099 11HARDBG 138 27100 11HARDN	27012 118MITH 345 27142 119MITH	27095 11GR RVR 138 27126 11OHIO C	26861 10ABBRWN 138		23051 05FULLER 138 23173 05MILLER	11101 8BAD CRK 500 11102 8JOCASSE	23051 05FULLER 138 23173 05MILLBR		m 23051 OSFULLER 138 231/3	The Control of the Co	C:Open 27552 14COLE 5 161 27564 14NATAL5 161 1	14WILSO7 345 27563	27061 11BONNIE 138 27141 11SHREWS	23051 05FULLER 138 23173 05MILLBR	27028 11GR RV 161 27553	C:Open 29398 20LAURIC 161 29400 20LAURIU 161 1	27028 11GR RV 161 27553 14MILSOS	11GR RV 161 27553	Base Case		C:Open 31576 RANTOUL 138 32383 RISING 138 1	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR		500 18430 8DAVIDSO	27095 110R RVR 138 27126 110HIO C	27099 11HARDBG 138 27100 11HARDN	27099 11HARDBG 138	- დ	18006 SSHAW G7 161 18039 SC-37B	11GR RV 161 27553 14WILSOS	C:Open 27028 11GR RV 161 27553 14WILSO5 161 1	66617	nn 27028 11GR RV 161 27553 14WILSOS 161	C:Open 25576 08M.FORT 138 25821 08WILBY1 138 1	Base Case		27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV	11SMITH 138	27560 14HENDRS 161 27617 14HENDR4 138	27099 11HARDBG 138 27100 11HARDN	27099 11HARDBG 138 27100	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	ALBEMARI, 100 11291	THE ACHEMAN TO TIZE OF SECOND
18 6 R -0.08114 -0.37001 27023 11DELVIN 161 29348 20GRNHLJ 161 1	27023 11DELVIN 161 29215 20BTYVL	27105 11KENTON 138 29566 20SPURLK	27028 11GR RV	VIN 161 27045 11WI TAP	20DAVIS 69.0 29319 20FAYETT	27034 11LR TAP 161 27045 11WI TAP	11GR RVR 138 27126 11OHIO C	. III72 SROBBING 161 LB040 SSANIEET 161 I	27012 11SMITH 345 27142 11SMITH	27006 11HARDN 345 27012 11SMITH	27079 11CLVRPR 138 27094 11GR 9TL	27095 11GR RVR 138 27126 11OHIO C	10CULLBY 138 26879 10GRNDVW			11084 SNANTAHA 161 11172	DSPLYM. G69.0 24091 05N	11W LEXN 345 27153	0.48510 24077 05FRANKN69.0 24084 05PLYM.G	I DEI HISMITATE SAS ZINZ ILSMITH SAST	O 16233 26855 10NEWTVL 138 27079 11CLVRPR	11GR RV 161 27553	11E VIEW69.0 29571	20ARGTM 138 29198	14WILSO7 345 27563	-0.31512 27027 11FARLEY 161 27206 11FARLEY69.0 1	138 26857	10NEWTVL 161 27552	- 2702B 11GR RV 161 27095	- 27028 11GR RV 161 27095	0.00000;18427 8PARADIS 500 18428 8MONTGOM 500 1	0,77495 27028 11GR RV 161 27095 11GR RVR 138 2	0.77429 27028 11GR RV 161 27095	0.75817:27095 11GR RVR 138 27126	0.42491 26851	0.5092/ 18422 6041LLE 300 18430 6041LD30 0.74673 27095 11GR RVR 138 27126 11OHIO C	-0.32916 27012 11SMITH 345 27142	-0.32916 27006 11HARDN 345 27012 11SMITH		-0.16831 26835 IONEMIVE 130 2/0/3	-0.56709 27561 14WILSO7 345 27563 14COLE 7	0.22051.26855 10NEWTVL 138 26857 10NEWTVL	0.35634 26857 10NEWTVL	- 18041 27552 14COLE 5 161 27564 14NATALS	0.00000 18427 8PARADIS 500 18428	18427 BPARADIS 500 18428 BMONTGOM	0,25941.27558 145KILMS 161 27564 14NATALS 261 1	0.77495 27028 11GR RV 161 27095 11GR RVR	0.77429 27028 11GR RV 161 27095 11GR RVR	0.75817 27095 11GR RVR 138	0.59587 27079 IICLVRPR 138 27094 LIGH SIL	-0.42491 26851 10000001 258 22142 118MITH	-0.32916 27006 11HARDN 345 27012 11SMITH	0.74073 27095 11GR RVR 138 27126 110HIO C	11172 SROBBINS 161 18040 59ANTEST 161 I	OF CHARAC total con resusative contra contra
-0.08114	0.08706	0.02836	0.10232	0 07207		-0.06934	0.04162	-0.06374 -	-0.09488	-0.09488	-0.03404	0.04066	-0.03924	0.02369	0.10486	-0.06374 -	-0.07109	0.05999	-0.07109	-0.07836 -	0.06196	-0.26539	0.02335	-0,12920	0.29178	0,02703	-0.02979	-0.20036	0.05774 -	0.05752 -	0,50000	0.06725	0.06719	0.02109	-0.03299	0.02061	-0.03789	-0.03789	-0.26973	0.05952	0.26869	-0.09911	-0.17721	-0.24428	0.50000	0.50000	-0.10908	0.08481	0.08474	0.03148	-0,02866	92650.0-	-0.06006	0.03075	-0.02892	
18.6 R.	46.2 R	62.2 R	76.5 •	9 9 001	101.1 R	131.4 R	169.0 *	182.4	211.4	216.1	241.0 *	267.4 *	322.0 R	139.3	472.9 *	498.5	541.3 *	548.7 •	607.6	828.1	833.8			944.7 *	952,9 *	1001.1	1001.4		1073.9	1082.8	1435.6 •	116.4 *	118.4 *	333.5	382.9 R	404.2 R	529.4		904.2 *	993.B		1108.6 *	1155.4 *	1331.3	1435.6 *	1435.6	1457.7 •	92.3 *	93.9	223.5 ·		321.7 R	341.3 *	353.5 +	402.1 *	
OROUP_5B 1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	2.0021	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	
GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SH	GROUP SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_5B	GROUP SB	GROUP SB	GROUP_5B	GROUP_5B	GROUP SB	GROUP_SB	GROUP_5B	as dilogo	GROUP SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP 6B	GROUP GB	GROUP_6B	GROUP_6B	GROUP_6B	GROUP SB	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_68	GROUP GR	GROUP_6B	GROUP_6B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B		
31	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR #45F00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45200	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR W45P00	1500 OR_#45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OB WASBOO	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500 OR W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500 OR #45F00	1500_OR_W45P00	1500_OR_M45P00	1500 OR W45P00	1500_OR_W15P00	1500_OR_W45P00	1500 OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	1500_OR_W45P00	

1500_OR_M45P00 GROUP_7B 1500_0 910_0	-0.11262 -0.06223 -0.06234 -0.10464 -0.07369 -0.08053 -0.	0. 791518 11087 BADIN 100 11018 ALBENARIA 100 2 0. 16831 26855 1018FTVU 138 27079 11CLWFR 138 1 0. 15839 27551 14171597 185 12751 14171595 1817159 0. 15839 27551 14171597 185 27551 14171597 181 1 0. 12051 26857 1018FTVU 138 26857 1018FTVU 151 1 0. 10527 18152 1018FTVU 151 172 5808BINS 161 1 0. 10527 18152 8771716 500 15172 5808BINS 161 1 0. 10527 18152 8771716 500 15172 5808BINS 161 1 0. 10527 18152 87717 14154 1717 1717 1717 1717 1717 1717	11027 BADIN 101 1123 ALBERARI 100 1. 27028 11GR RV 151 27553 14M112605 151 1. 27028 14GR RV 100 11028 HIGH RCK 100 1. 27028 14GR RV 100 11028 HIGH RCK 100 1. 27028 14M112607 152 27553 14GR RD 7 351 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GR RD 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27554 14M112607 345 27553 14GR RD 7 345 1. 27554 14M112607 345 27553 14GC R 7 345 1. 27555 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1. 27551 14M112607 345 27553 14GC R 7 345 1.	10.15.4 10.15.4 10.15.4 10.15.4 10.15.7 10.15.7 10.15.7 10.15.7 10.15.7 10.15.7 10.15.7 10.15.7	-57.7. 142.2 142.2 159.2 -242.3 -242.0 1711.4 -68.3 -305.0 1730.5	0.03059 0.03059 0.17670 0.06308	•	
GROUP_78 1500.0 950.5	0.02827 0.02827 0.02827 0.02827 0.05020 0.05020 0.0350	0. 2002) 2682 1008ETVL 138 27079 11CLOVERR 138 1 0. 5503 25681 10MESTVL 181 2685 11CLOVERR 138 1 0. 50327 26852 10WESTVL 181 2685 11CLOVERR 138 1 11049 5487741 181 11.712 5008ETWL 161 1 0. 60927 18422 80VILLE 500 18430 80AVIENG 500 1 0. 60927 18422 80VILLE 500 18430 80AVIENG 500 1 27012 11SMTH 145 2742 11SMTH 138 1 27012 11SMTH 145 2742 11SMTH 138 1 0. 00000 18427 8642ADIS 500 18420 80VICMTE 501 1 0. 75427 18468 80VILME 500 18469 50VICMTE 501 1 0. 75427 18446 80VILME 500 18469 50VICMTE 501 1 0. 67437 26855 10WERTVL 181 2648 80VICMTE 501 1 0. 67437 26855 10WERTVL 181 26879 10GRNUW 138 1 0. 6027 1842 80VILME 500 18430 80AVIENG 500 1 0. 65524 26070 80VILME 500 18430 80AVIENG 501 1 0. 65522 2685 10MESTVL 181 27871 14MENDR 131 1 0. 57790 26859 10MESTVL 181 26857 10MENDR 131 1 0. 56522 26856 10MESTVL 181 26857 10MENDR 131 1 0. 57790 26859 10MESTVL 181 26857 10MENDR 131 1 0. 7780 26859 10MESTVL 181 26857 10MENDR 131 1 0. 57790 26859 10MESTVL 181 26857 10MENDR 131 1 0. 77790 26859 10MESTVL 181 26857 10MENDR 131 1 0. 77790 26859 10MESTVL 181 26857 10MENDR 131 1 0. 77790 26859 10MESTVL 181 26857 10MENDR 131 1 0. 77790 26859 10MESTVL 181 26873 10MENDR 131 1 0. 77790 26859 10MESTVL 181 26873 10MENDR 131 1	27028 110R RV 161 27553 14MILSOS 161 1 11101 BADD CKK 500 11103 80.00588 500 1 11087 BADIN 100 11088 HIGH RCK 100 2556 14MILSOS 161 2767 14MIRDOR 181 1 2756 14MILSOS 162 27563 14MIRDOR 191 1 2554 0 001190 HIGH PON 145 2001 00019 2755 14MILSOS 145 27563 14COL 7 345 1 2755 14MILSOS 345 27563 14COL 7 345 345 1		142.2 557.8 -166.8 -242.2 -216.0 1711.4 -307.3 -307.3 -306.0 1730.5 1112.6	0.03059 0.17670 -0.06308 -0.12497		
GROUP_78	0.08931 0.01892 0.08930 0.08930 0.08930 0.09800 0.09800 0.09800 0.018930 0.018930 0.01813 0	0.25679 27561 14MTLGO7 345 27567 14COLE 7 345 1 0.2052 58655, INNEWTUL 18 20557 10MSWTVL 161 1 0.50527 10MSWTVL 18 11772 5ROBITW3 161 1 0.60527 13422 5MTLGE 500 16430 5MTLGS 500 1 0.60527 13422 5MTLGE 500 16430 5MTLGS 500 1 27012 11SMTTH 345 27142 11SMTTH 313 1 27012 11SMTTH 345 27142 11SMTTH 313 1 27012 11SMTTH 345 27142 11SMTTH 313 1 0.00000 18427 6PARADIS 500 14428 6MTGUN 500 1 0.75412 19646 8WOLUNTE 500 14428 6WOLUNTE 201 1 0.75412 19646 8WOLUNTE 500 14428 6WOLUNTE 201 1 0.44197 26851 10CULAEY 139 26879 10GRNDW 318 1 0.44197 26851 10CULAEY 139 26879 10GRNDW 318 1 0.65524 26078 08OKLAND 130 27871 16ENTE 138 1 0.26522 78628 10MSWTVL 181 77552 14COLE 5 461 1 0.26522 78628 10MSWTVL 181 27637 14HSWDR 4 138 1 0.26522 78628 10MSWTVL 181 26879 10MSWT 418 1 0.26522 26651 10MSBRHH 130 27617 14HSWDR 4 138 1 0.27790 26851 10MSBTVL 182 65557 10MSWT 418 1 0.27790 26851 10MSBTVL 182 65557 10MSWT 418 1 0.27790 26851 10MSBTVL 182 65557 10MSWT 418 1 0.27790 26851 10MSBTVL 181 26557 10MSWT 418 1 0.27790 26851 10MSBTVL 181 26557 10MSWT 418 1 0.27790 26851 10MSBTVL 181 26557 10MSWT 418 1	77028 110R RV 161 27559 14MILGOS 161 1 77028 110R RV 161 27559 14MILGOS 161 1 11101 BADD CRK 500 11102 600CASSE 500 1 114110 BADD CRK 500 11102 600CASSE 500 1 114121 BCHWERKL 500 11102 60CASSE 500 1 114121 BCHWERKL 500 11102 60CASSE 500 1 11412 BCHWERKL 510 14480 HIGH RCK 100 888 86183 SCALIF 161 96236 5GRORGE 161 14457 BWBNP 1 500 14468 BVOLUNTE 500 1 14457 BWBNP 1 500 14468 BVOLUNTE 500 1 14457 BWBNP 1 500 14468 BVOLUNTE 500 1 14457 BWBNP 2 500 14468 BVOLUNTE 500 1 14455 BCHWERKL 500 1440 BVOLUNTE 500 1 27554 14MILGOT 345 27552 14REED 7 345 1 27554 14MILGOT 345 27553 14REED 7 345 1 27555 14MILGOT 345 27553 14REED 7 345 1 27554 14MILGOT 345 27553 14REED 7 345 1 27555 14MILGOT 345 27553 14REED 7 345 1 27557 14MILGOT 27553 14REED 7 345 1 27557 14MILGOT 2755		597.8 -168.8 -245.0 -216.0 -1731.4 -68.3 -306.0 -306.0 -306.0 -306.0	0.17670 -0.0630B -0.12497		
1500.0 1051.0		0.2563 2685, IONENTU, 18 2687 IONENTUL 161 1 0.0563 2685, IONENTU, 18 1172 SP60BHT8 161 1 0.0597 1842 DAVILLE 50 18430 BNDVIESO 50 1 0.0597 11088 HIGH RCK 100 11226 ENRO UTS 100 1 27012 115MTH 145 27142 115MTH 138 1 0.05000 18427 BRANCH 145 27142 115MTH 145 1 0.05000 18427 BRANCH 250 18468 WOLLWITE 161 1 0.0597 18468 WOLLWITE 500 18468 WOLLWITE 161 1 0.05537 18468 WOLLWITE 500 18468 WOLLWITE 161 1 0.05417 26851 10CULENT 182 2679 10GRUDW 138 1 0.04717 26851 10CULENTUL 182 2679 10GRUDW 138 1 0.04717 26851 10CWLLENTUL 17551 14COLE 5 161 1 0.05527 18425 WOLLEN 50 18430 BNDVH 138 1 0.25527 18425 WOLLEN 50 18430 BNDVH 138 1 0.27790 26851 10ABBRHH 138 27647 14HRDNR 138 1 0.27790 26851 10ABBRHH 138 27145 11POVD 5138 1	77026 110R FV 16.1 27553 14411505 151. 11101 BBAD CRK 500 11102 6-00CASSE 500 1 10425 SCHWERL 500 14420 SDAVIDSO 500 1 10425 SCHWERL 500 14420 SDAVIDSO 500 1 10427 BADDIN 100 11088 HIGH RCK 100 86 86 86 86 86 86 86 87 87 87		. 168.8 - 242.2 - 216.0 1731.4 - 68.3 - 306.0 1730.5 1132.6 1724.0	-0.12497		
1000.00 1000.00		0.18534 28537 10188 THE TO 11.72 SEOBENS 56.11 0.60927 18422 BUYLLE 500 18430 BDNUTBS 500 1 0.69937 18488 THE THE STATE SEOBENS 500 1 27012 1184TTH 134 27142 1184TTH 134 1 27012 1184TTH 134 27142 1184TTH 134 1 0.0000 18427 88488 THE STATE SEOBENS 500 1 0.75412 18468 SULLEN 500 18428 SHOWTOON 500 1 0.75412 18448 BULL RU SON 18458 SHOWTOON 500 1 0.75412 18448 BULL RU SON 18458 SHOWTOON 500 1 0.75412 18448 BULL RU SON 18458 SHOWTOON 138 1 0.40577 28428 LUCLEN 500 18458 SHOWTOON 138 1 0.40577 28428 SULLEN 500 18458 SHOWTOON 138 1 0.60577 28428 SULLEN 500 18430 BDNUTBS 500 1 0.60577 28428 SURSETUL 138 2857 10187RH 138 1 0.2552 27550 1448RDEN 138 27647 1448RDR 4 138 1 0.27750 26551 10188TUL 138 25557 10187RH 138 1 0.27750 26551 10188TUL 138 27145 11180ND C 138 1	2008 ILLOR KY ILL TO 7599 INTERCOLLET ILL TO BADD GRK 500 ILLOR BADD GRK 500 ILLOR BADD GRK 500 ILLOR BADD GRK 500 ILLOR BADD KK 500 ILLOR BADD GRK 500 ILLOR BADD KK 100 ILLOR BADD KK 100 BAS 500 ILLOR BADD KK 100 ILLOR BADD K 1		-216.0 1731.4 -68.3 -307.3 -306.0 1730.5 1132.6		46.3	-87.0 34.37%
GROUP_7B 1500.0 11439 GROUP_7B 1500.0 11439 GROUP_7B 1500.0 11284.0 GROUP_7B 1500.0 11284.0 GROUP_8B 1500.0 11251.4 GROUP_8B 1500.0 11251.4 GROUP_8B 1500.0 11251.4 GROUP_8B 1500.0 1125.0 GROUP_8B 1500.0 1068.2 GROUP_8B 1500.0 1068.3 GROUP_8B	- 0.02922 - 0.02923 - 0.02923	10.66927 18422 BUTLLE S 500 18430 BDAULBOS 500 1 0.60927 18422 BUTLLE S 500 18430 BDAULBOS 500 1 27012 1198HTH 145 27142 1158HTH 138 1 27012 1198HTH 145 27142 1158HTH 138 1 0.00000 18427 BEARADIS 500 18428 BHONTON 500 1 0.75412 18446 BUTLLE S 500 18458 PULLMTE 161 1 0.74912 18446 BUTLLE S 500 18468 PULLMTE 161 1 0.74912 18446 BUTLLE S 500 18468 PULLMTE 161 1 0.74912 26851 100ULHE S 500 18468 PULLME 500 1 0.6479 26852 100UHFT 500 18468 PULLME 500 1 0.65524 26079 BOOKLAN 118 26879 100RNUWH 138 1 0.65524 26079 BOOKLAN 118 26879 100RNUWH 138 1 0.65524 26070 1448DES 161 27871 168PTE 138 1 0.65522 26561 10ABBRAN 118 27871 144BCNER 138 1 0.77780 26851 10ABBRAN 118 27817 144BCNER 138 1	1116 PADIN IN 100 11000 HIGH RCK 100 1106 HIGH RCK 100 11001 HIGH RCK 100 11001 B HIGH RCK 1001 B HIGH RC		1731.4 -68.3 -307.3 -306.0 1730.5 1132.6 1724.0	-0.02892		
GROUP_TB 1500.0 1281.2 GROUP_TB 1500.0 1281.2 GROUP_TB 1500.0 1419.6 GROUP_BB 1500.0 1061.2 GROUP_BB 1500.0 1061.2	-0.06979 -0.05053 -0.05053 -0.05053 -0.05053 -0.0356 -0.0356 -0.0356 -0.03956 -0.03923 -0.03923 -0.03923 -0.03923 -0.03923 -0.03923 -0.03923 -0.03923 -0.03933 -0.039	0. 49997 1108B HIGH RCK 100 11226 BRR6 U192 100 1 27012 118MITH 145 27142 118HITH 138 1 27012 118MITH 145 27142 118HITH 138 1 27002 18427 BRANDINS 045 27142 118HITH 138 1 0.00000 18427 BRANDINS 500 14428 BWRGUND 150 1 0.75412 18464 BWULL RU SOO 14458 BWULMTE 161 1 0.75412 18464 BWULL RU SOO 14468 WULMTE 161 1 0.04179 26851 10CULERY 138 26479 10CMRUNW 138 1 0.4179 26851 10CULERY 138 26479 10CMRUNW 138 1 0.4179 26851 10CWLERY 101 17551 14COLE 5 451 1 0.65524 2678 080KLMD 130 27871 16FTT 138 1 0.2552 27545 14HRUNG 11 27617 14HRUNG 138 1 0.2652 27545 14HRUNG 11 27617 14HRUNG 138 1 0.2652 27545 14HRUNG 11 27617 14HRUNG 138 1 0.27790 26851 10CMRTFU 187 26551 10CMRTFU 151 1 0.27790 26851 10CMRTFU 187 26551 10CMRTFU 151 1 0.27790 26851 10CMRTFU 187 26551 10CMRTFU 151 1	1067 BADIN 100 1108 HIGH RCK 100 86182 SCALIF 161 96236 SGEORGE 161 18457 BHBNP 1 500 18468 BVOLUNTE 500 1 27550 1448TORS 12 7247 1448EDB8 139 1 27550 1448TORS 12 7247 1448EDB8 139 1 27551 1448TORS 12 500 18430 BAVIDSO 500 1 27551 1448TORS 2752 146EB 73 34 1 27551 1448TORS 2752 146EB 7 345 1 27551 1448TORS 345 2752 148EB 7 345 1		-68.3 -307.3 -306.0 1730.5 1132.6	-0.06803		
GROUP_78	- 0.05053 - 0.05	27012 118MTM ANA TOTAL SAFETY AND THOSE THANKING AND THAN	### STALLF IEL 94235 SORONGE 181. 18618 SCALIF IEL 94235 SORONGE 181. 18618 SPHIPP B 500 18468 WVOLNTE 500 1 77550 LHENDROR I.S. 7247 LHENDRA 138 1 77551 LHENDRA 138 7767 LHENDRA 138 1 77551 LHENDRA 138 7767 LHENDRA 138 1 77551 LHENDRA 138 7767 LHENDRA 138 1 77551 LHENDRA 138 7757 LHENDRA 138 1		-306.0 1730.5 1132.6 1724.0	-0.04450		-39.1 22.23
GROUP_78 1500.0 GROUP_88 1500.0 GROUP_88 1500.0 GROUP_8 1500.0	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	27006 11HARDN 345 27012 11SHITH 345 1 0.00000 18427 SEARADIS 500 18428 SHONTON 500 1 0.5512 18468 SHOLDNIE 500 18468 SHOLDNIE 500 1 0.5412 18468 SHOLDNIE 500 18468 SHOLDNIE 500 1 0.4412 28451 INCHILLE 118 26479 LOORNIWH 138 1 0.4477 28452 INCHILLE 118 26479 LOORNIWH 138 1 0.4527 2842 10CHENTUL 18 26479 LOORNIWH 138 1 0.6524 26470 SHOKENTUL 18 26479 LOORNI 18 1 0.6522 27560 INTERPRE 512 17617 LHENDR 138 1 0.2752 2652 17561 INCHILLE 500 18439 BRAYINDSO 500 1 0.2752 2652 17561 INCHILLE 500 18539 INCHILLE 18 1 0.37780 26552 INCHILLE 500 18531 INCHILLE 18 1 0.37780 26552 INCHILLE 18531 INCHILLE 18 1 0.37780 26552 INCHILLE 18531 INCHILLE 18 1 0.37780 26552 INCHILLE 18531 INCHILLE 18 1 27135 11EVND C 138 27144 INTIPTOP 138 1	### SCALIF 161 94236 SGRORGE 161 ### SCALIF 161 94236 SGRORGE 161 ### SCALIF 161 94236 SGRORGE 161 ### SCALIF 161 9423 SGRORGE 161 ### SCALIFORDE 162 7647 14182054 138 1 ### SCALIFORDE 162 7647 14182054 138 1 ### SCALIFORDE 162 7657 14182054 138 1 ### SCALIFORDE 162 7657 14182054 138 1 ### SCALIFORDE 162 7657 1418205 138 1 ### SCALIFORD 164 766 766 766 1 ### SCALIFORD 164 766 766 766 766 1 ### SCALIFORD 164 766 766 766 766 766 766 766 766 766 7		.306.0 2730.5 1132.6 1724.0			3,55%
GROUP_8B 1500.0	0.00624 0.00624 0.00966 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992 0.00992	18427 EPARADIS 500 18428 BYONTON 500 1 18468 BYOLUNTE 500 18468 SYOLUNTE 161 1 18468 BYOLUNTE 500 18468 SYOLUNTE 160 1 26651 IOUTILEW 113 26679 IOORNUWH 130 1 26655 IONSERTVL 113 7552 14002 5 141 1 26655 IONSERTVL 113 7552 14002 5 141 1 26655 IONSERTVL 113 7552 14002 5 141 1 2665 IONSERTVL 12 7501 144ENDER 113 1 2756 I4HENDER 161 7767 144ENDER 113 1 2665 IONSERTVL 13 26657 IONSERTVL 161 1 27106 ILKNOB C 118 27155 ILEVNO C 118 1 27116 ILKNOB C 118 27155 ILEVNO C 118 1 27116 ILKNOB C 118 27155 ILEVNO C 118 1	96182 SCALIF 161 96235 SOROROE 161. 18073 BRHIPP 8 500 18468 WOLLUNTE 500 1 26561 JOADBURN 15 01 18468 WOLLUNTE 500 1 26561 JOADBURN 182 27621 JURDED 183 1 27561 JURILDON 34 27562 JUROLE 7 345 1 27564 BRITLON 34 27562 JUROLE 7 345 1 27564 BRITLON 34 27562 JUROLE 7 345 1 27561 JURILDON 34 27562 JURELD 7 345 1 27561 JURILDON 34 27562 JURELD 7 345 1 27561 JURILGON 34 27562 JURELD 7 345 1 27561 JURILGON 34 27562 JURILDON 34 27561 JURILGON 34 27561 JURILGON 34 27562 JURILGON 34 27561 JURILGON 34 27562 JURILGON 34 27561 JURILGON 34 27		1730.5 1132.6 1724.0			3.434
GROUP_88 1500.0	0.03624 0.0363 0.02923 0.02933 0.02933 0.02933 0.01117 0.01117 0.01263 0.01	18464 BBULL RU 500 18468 SVOLUNTE 161 1 18464 BBULL RU 500 18468 SVOLUNTE 500 1 26851 ONDERTYL 130 26879 LOGRNDWH 138 1 26855 LONBERTYL 130 26879 LOGRNDWH 138 1 26857 LONBERTYL 151 2752 1400LE 5 161 1 26879 BORCHAD 130 27871 LEBETE 138 1 18422 SAVILLE 50 18470 BDAVIDSO 500 1 27564 LANBENDE 161 27617 LAHRENDR4 138 1 26651 LOADSHRW 130 27617 LAHRENDR4 138 1 27135 ALROWN C 130 27144 LAHRENDR 138 1	1867 SHIPP B 500 18468 BVOLUNIX 500 18457 SHENP 1 500 18468 BVOLUNIX 500 20560 144RNDRS 161 27647 144RNDRS 138 20561 144RLBOD 345 27553 140CLK 7 345 20541 6001BSON 345 27553 140CLK 7 345 20541 6001BSON 345 27553 140CLK 7 345 27551 144RLBOD 345 50010 284-3454 345 27551 144RLBOD 345 50010 284-3454 345 27551 144RLBOD 345 27553 140CLK 7 345	1214.2 1810.6 188.6 -161.1	1132.6	0.50000	1012.7	1730.5
GROUP_88 1500.0	0.03624 0.0366 0.03960 0.03923 0.02933 8 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117	14464 89UULRY 190 14465 90UURTE 191 1 26851 10UULEY 130 16679 10ORNUWH 130 1 26851 10UULEY 130 16679 10ORNUWH 130 1 26857 10URERYUL 161 77552 14COLE 5 141 1 26079 80OKLMD 130 27971 16PETE 130 1 14422 89UYLLES 50 10430 80W1M905 500 1 27564 14HRUNES 161 27647 14HRUNEH 130 1 26651 10ASBRHH 130 27647 14HRUNEH 130 1 26651 10ASBRHH 130 27647 14HRUNEH 130 1 26651 10ASBRHH 130 27157 14HRUNEH 130 1	18475 MENDE 1 500 18448 NOULTUTE 500 27560 14400005 141 27427 144000054 139 27561 14400005 141 27427 144000054 139 27564 14400000 345 27563 1460015 734 275541 04401000 345 27563 1460015 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27562 1480110 734 27561 1440116007 345 27563 14000016 734 27561 1440116007 345 27563 1400016 734	1810.6	1724.0	0.01270	6.667	765.3 12.004
GROUP_8B 1500.0	0.0360 0.0360 0.03928 0.02933 0.02924 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117 0.14117	11645 BBBLL KG 100 12495 BOUGHBOWH 130 1 26851 100CULARY 130 26879 100RHOWH 138 1 26857 100KHYUL 161 7552 14COLE 5 161 1 26857 100KHYUL 161 7552 14COLE 5 161 1 116425 BOUTLAB 100 70970 18400 BOUGHBOW 138 1 27650 14HRWDRS 161 72677 14HRWDRS 130 1 26851 100KHYUL 130 26870 10KHYUL 181 1 26851 100KHYUL 130 25857 10KHYUL 181 1 27106 11KNOB C 138 27105 11ROWD C 138 1 27135 11ROWD C 138 27135 11ROWD C 138 1	7350 14HENDR 12 776.7 14HENDR 138 2661 10ABBRH 138 776.7 14HENDR 138 25946 04GIESON 345 27657 14HENDR 134 25946 04GIESON 345 27657 14COLK 734 25946 04GIESON 345 27657 14COLK 734 27561 14HILEOT 345 27562 14REID 7345 27561 14HILEOT 345 27562 14COLK 734 27561 14HILEOT 345 50010 12A-345,345 27561 14HILEOT 345 50010 12A-345,345 27561 14HILEOT 345 50010 12A-345,345 27561 14HILEOT 345 77562 14REID 7345 27561 14HILEOT 345 77562 14REID 7345 27561 14HILEOT 345 77563 14COLK 735	188.6		0.05757	.#	
GROUP_88 1500.0	0.02928 0.02933 0.02933 0.02934 0.01117 0.01117 0.01186 0.0186 0.018	Zessi INCOLAKE 12 SEG97 100RNDVW 128 1 26855 10NEMTVL 138 26879 100RNDVW 138 1 2687 10NEWTVL 161 77552 14COLE 5 161 1 2687 20NCKAN 128 27271 1687EE 138 1 2685 10NEWTVL 181 27871 14REDR6 138 1 2685 10NEWTVL 138 2687 10NEWTVL 161 1 27106 11XNOW C 138 27159 11POND C 138 1 27155 11ROWD C 138 27154 11TIPPOP 138 1	2661 JAMBURN 128 27617 14HENDER 138 75761 14HENDO 144 57520 14COLD 746 75761 14HENDO 144 57520 14COLD 746 75761 14HENDO 745 57601 16HEND 745 77561 14HENDO 745 27562 14HEND 745 77561 14HENDO 745 77562 14HEND 745	124.1	176.0	0.01490		
GROUP_88 1500.0 GROUP_8 1500.0 GROUP_8 1500.0 GROUP_8 1500.0	0.09324 0.09324 R -0.14117 0.14117 0.12149 0.01216 0.01166 0.01864 0.1894	28857 1008ETFUL 161 7752 1400E 8 161 1 28070 800KLMD 161 2752 1400E 8 161 1 18422 807ULLE 500 18430 80AV1980 500 1 27661 10ABBRM 130 27677 144RBMS 118 1 26651 10ABBRM 130 27677 144RBMS 118 1 27065 11XNOB C 138 27575 11P0MD C 138 1 27105 11XNOB C 138 27155 11P0MD C 138 1	27561 14M11607 345 27563 14COLK 7 345 25546 0001780 455 25546 0001780 455 27562 14M11607 345 27562 14REID 7 345 27551 14M11607 345 27562 14REID 7 345 27551 14M11607 345 27551 14M11607 345 2010 12A-345A 345 27551 14M11607 345 50110 12A-345A 345 27551 14M11607 345 50110 12A-345A 345 27551 14M11607 345 27561 34M11607 3	124.1	-175.6	-0.01560	•	
GROUP_88 1500.0 GROUP_88 1500.0 GROUP_88 1500.0 GROUP_88 1500.0 GROUP_88 1500.0 GROUP_8 1500.0 GROUP_8 1500.0 GROUP_8 1500.0 GROUP_8 1500.0 GROUP_8 1500.0	-0.03924 -0.12802 -0.12802 -0.12813 -0.12186 -0.03186 -0.	26078 000KAND 138 27877 16PETS 138 1 18422 8477LLS 50.0 18430 80074505 500 1 75661 16NBSKR 113 27647 14HRDR4 138 1 26851 16NBSKR 138 27617 14HRDR4 138 1 26851 16NBSKR 138 27857 16HRDR4 138 1 27376 11KNOB C 138 27155 11POND C 138 1	25946 00GIBSON 345 26081 00GIB 138 138425 GOUDBERL 500 1840 BANDOSO 500 27561 144TLGOV 345 27562 14RELD 7 345 27561 144TLGOV 345 27562 14RELD 7 345 27561 144TLGOV 345 27562 14RELD 7 345 27561 144TLGOV 345 50010 \$2A-345, 345 27561 144TLGOV 345 50010 \$2A-345, 345 27561 144TLGOV 345 27562 14RELD 7 345 27561 144TLGOV 345 27562 14RELD 7 345 27561 144TLGOV 345 27562 14RELD 7 345		242.2	0.13894		7
GROUP_BB 1500.0		18422 83VILLE 500 18430 80AVIDSO 500 1 77560 14HENDRS 161 27677 14HENDR4 138 1 26651 10HOSEPT 138 27677 14HENDR8 138 1 27165 11NOSETU 138 26657 10HENTYL 161 1 27155 11ROND C 138 27155 11POND C 138 1 27155 11ROND C 138 27154 11ITPTOP 138 1	500 16430 BDAVIDSO 500 345 27562 14REID 7 345 345 27563 14REID 7 345 345 27563 14COLE 7 345 345 2010 12A-345 345 345 27563 14COLE 7 345 345 27563 14COLE 7 345	- 777-	-142.1	-0.01297		-
GROUP_BB 1500.0	0.14117 0.12417 0.12418 0.05186 0.05186 0.41088 0.13894 0.13894	27560 14HENDES 161 27617 14HENDE4 138 1 26655 10HENTUL 13 27617 14HENDE5 138 1 26555 10HENTUL 13 2667 10HENTUL 161 1 27106 11KNOB C 138 27155 11FOND C 138 1 27155 11FOND C 136 27144 11TIPTOP 138 1	345 27562 1RREID 7 345 346 27562 1RREID 7 345 345 50010 #24-3458 345 345 50010 #24-3458 345 345 27562 1RREID 7 345 345 27562 1RREID 7 345	1831.9	1731.4	0.07070		779.6 5.294
GROUP_8B 1500.0		2661 10ABBRWN 136 27617 14HENDW 138 1 26655 10ABWTUL 138 2663 10ABWTUL 161 1 27106 11KNOB C 138 27135 11BOND C 138 1 27135 11ROND C 136 27144 11TITOP 138 1	345 27562 14REID 7 345 345 27563 14COLE 7 345 345 50010 82A-345A 345 345 27562 14REID 7 345 345 27563 14COLE 7 345	-105.9	-224.0	-0.05814	5.901	
GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0		26555 JONEWTYL 138 26857 10NEWTYL 161 1 27106 11KNOB C 138 27135 11POND C 138 1 27135 11POND C 138 27144 11TIPTOP 138 1	345 27563 14COLE 7 345 345 50010 #2A-345A 345 345 50010 #2A-345A 345 345 27563 14COLE 7 345	105.9	224.0	0.05814		4 K
GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0		27106 11KNOB C 138 27135 11POND C 138 1 27135 11POND C 138 27144 11TIPTOP 138 1	345 50010 M.A. 345A 345 345 27563 14COLE 7 345 345 27563 14COLE 7 345	0 1 6	142.2	0.02570		
GROUP_88 1500.0 GROUP_8 1500.0 GROUP_8 1500.0 GROUP_8 1500.0		27135 11POND C 138 27144 11TIPTOP 138 1	345 27562	87.2	142.5	0.02570		
GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0		THE PERSON NAMED AND POST OF THE PARTY OF TH	345 27563	184.9	597.8	0.16867	186.5	
GROUP_8B 1500.0 GROUP_8B 1500.0		27562 1488TD 7 345 1		105.6	5.07.7	0.31307	-2.5	372.5 20.78%
GROUP_BB 1500.0		26857 10NEWIVE 161 27552 14COLE 5 161 1		46.3	242.2			
0 00011		SPARADIS 500 18428 8MONIGOM 500 1	C:Open 26878 10ELLIOT69.0 26884 10NE 69.0 1	1012.7	1730.5	0.50000	1012.7	1730.5 1.86¢
2000		18427 BPARADIS 500 18428 BMONTGOM 500 1		1012.7	1730.5	, , , ,		198 6 . 2.824
GROUP 8B 1500.0		0.30128 18026 SBARKLEY 161 27619 14HOPCOS 161 1 C:Ope	C:Open 27561 14WIL907 345 27562 14RBID 7 345 1	45.6	334.9	0.10484	: -	
	0.04562 -	26079 08PRNCTN 138 26081 08GIB 138 1 C:Ope	C:Open 27561 14NILBO7 345 50010 #2A-345A 345 1	T'8/T-	0.657			
		1 191 STMMOVE GALOR GAS STREET, CAS STREET	C: CDP 18018 8PHIPP B 500 18468 8VOLUNTE 500 1	1214.2	1132.6	0.01782	793.9	
GROUP NB 1500.0	0.05930	SOU 18469 SVOLUNIE INT I	8WBNP 1 500 18468	1810.6	1724.0	0.09837		
GROUP NE		27019 11RIUE L 161 29248 20BLIT C 161 1	27079 IICLVRPR 138 27144 11TIPTOP 138	240.6	239.9	-0.01794		237.0 12.82
1500.0		11GR RV	27028 11GR RV 161 27095 11GR RVR 138	124.3	132.2	0.05067	70.2	74.6 95.691
GROUP NB		27028 11GR RV 161 27095 11GR RVR 138 1	27028 11GR RV 161 27095 11GR RVR 138	124.2	132.2	0.000.0		
GROUP NB 1500.0		11GR RVR 138 27126 110HIO C 138 1	27095 11GR RVR 138 27126 11OHIO C	164.8	176.0	0,0113		
1500 OR M45P00 GROUP_NB 1500.0 288.7	·	26851 10CULLEY 138 26879 10GRNDVW 138 1	26861 10ABBKWN 138 2761/ 14HENDK4 138	-287.2	-307.3	-0.04631	•	258.9 20.87
GROUP_NB 1500.0		27012 11SMITH	2009 IIDMIN 345 27142 115MITH 138	-181.1	-189.3	0.00468	-36.7	
GROUP_NB		27079 IICLVRPR 138 27094 IIGR SIL 138 I	27099 11HARDRG 13B 27100 11HARDN 138	-285.5	-306.0	-0.04631	- 240.7	
GROUP_NB 1500.0	•	27126 110HIO C 13B 2	27095 11GR RVR 138 27126 11OHIO C	161.0	171.9	0.01577		_
GROUP NB		27095 IIGK KVK 138 27128 IIGHIG C 250 1	18425 BCUMBERL 500 18430 8DAVIDSO	1831.9	1731.4	-0.07340		
GROUP_NB 1500.0	1.0.11821 1.0.11821	22026 11GB RV 161 27553 14WILSO5 161 1	14WILSO7 345 27563	-313,5	-557.4	-0.17039	1	403.1 22.834
GROUP_NB 1500.0		27561 14WILSO7 345 27563 14COLE 7 345 1	11GR RV 161 27553 14WILSOS	319.8	597.8	0.18335	186.5	168.6 23.751
1500.0		26857 10NEWIVE 161 27552 14COLE 5 161 1	11GR RV 161 27553 14WILSOS	-37.5	-242.2	-0.1241/	7.64	
GROUP NB 1500.0		26855 10NEWIVL 138 27079 11CLVRPR 138 1	11GR RV 161	63.1	142.2	-0.06191		-75.4 23.294
GROUP_NB 1500.0		10NEWTVL 138 26857 10NEWTVL 161 1	028 11GR RV 161 27553 14W1L505	70.2	132.2			10.594
GROUP NB 1500.0		11GR RV 161 27095 11GR RVR 138 2		6.69	132.2			10.154
GROUP_NB 1500.0		LIGH KVR 138 I		-242.4	-307.3			
GROUP NB 1500.0	- 15440.0-	11501111 345 27012 115MITH 345 1	Base Case	-240.7	-306.0			1.364
1500 OR W45P00 GROUP NB 1500.0 1410.6		BPARADIS 500 18428 8MONTGOM 500 1	C:Open 96194 SCLINTN 161 96236 5GEORGE 161	99 1012.7	1730.5	0.5000	1012./	6.05/1
24-2000				20181	1724.0	0.02763	1264.6 1	1155.9 6.94%
1500 OR W45P00 GROUP SB 1500.0 -3936.4	.02200	SBULL RU 500 18468 SVOLUNTE 500 1	18457 BWBNP I SOO 18468 BVOLUNIE SOO	124.3	132.2	0.04776		74.6 90.05\$
GROUP_SB	• 0.08463	11GR RV 161 27095 11GR RVR 138	27028 110K KV 161 27099 110K KV.	124.2	132.2	0.04758	6.69	
GROUP_SB 1500.0 94.1		11GR RV 161 27095 11GR RVR 138 1	27025 11GR RVR 138 27126 110HIO C 138	164.8	171.8	0.01854	97.5	
GROUP_SB 1500.0 224.4	.′	11dR RVR 138 2/126 110HIO C 138 1	27012 118MITH 345 27142 115MITH 138	-181.1	-189.3	0.00245	-36.7	
GROUP_SB 1500.0		LICENTRY IN 2/034 LICENTRY AND INCOME.	26861 10ABBRWN 138 27617	188.6	176.0	-0.01821		
GROUP_SB 1500.0	· c	LUCULDER 138 48079 TOSMICH 138 1	27099 11HARDBG	-287.3	-307.3	-0.05106		259.2 23.184
GROUP_SB	88090.0-	345 27012 11SMITH 345 1	27099 11HARDEG 138 27100 11HARDN	-285.5	-306.0	-0.05106		
GROUP SB 1500.0		11GR RVR 138 27126 11OHIO C 138 2	27095 11GR RVR 138 27126 11OHIO C	161.0	171.9	0.02387		
O OBOTI ES 1500.0		SROBBINS 161 18040 SEANTEET 161 1	11101 8BAD CRK 500 11102	2.002.	-557.4	-0,18905		
4800P SR 1500.0			345 27563 14COLE 7		1771 4	- 6.07579		
1500.0		SJVILLE SOO 18430 SDAVIDSO 500 1	C:Open 18425 BCUMBERL 500 18430 BDAVIDSO 500 1	6.1681	1,1511			

\$ 100 \$ 100

Esta Company

30	23.934	24.464	27.73	34.30%	12.73%	12.554	20.101	20.10%	3 BOR 5			7.294	1.864
			-73.1 2	-86.5 3	104.3 1	104.3	-98.2	-98.2 2					1730.5
teifange Philipse & OE	B. E.	. 5.981	-7.1	46.3	-68.4 -	9.89.	41.9	-41.9					1012.7 I
TREBE	•					•							
Same .	0.03027	0.17560	-0.06278	-0.12449	-0.03278	-0.03272	-0.05069	-0.05069					0.50000
Describite and Marte	142.2	597.8	168.8	242.2	154.1	154.2	-172.0	172.0		.307.3	306.0	132.2	730.5
Tant			•	İ		•					•		-
Predbar	63.1	319.8	-58.9	-37.5	-101-	-101.0	-73.			-242.4	-240.	70.2	1012.7
Mon	-	-	ri ri	-	-				•				
And the second s	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	C: Open 27028 11GR RV 161 27553 14HIL905 161 1	305 161	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	RO 100 1	RO 100 2		100	TOO TITLE VERSIONAL TOO				C:Open 30886 LABADIE 345 31859 TYSON 2 345 1
, i	553 14WII	553 14WII	C:Open 27028 11GR RV 161 27553 14WILSOS 161	553 14WII	C:Onen 11192 ALBEMARI, 100 11291 OAKBORO	C:Open 11192 AUREMARE 100 11291 OAKBORO	438.14 CP1	TOTAL COL	TAC ALBERT				859 TYSON
on ting sh	161 27	161 27	161 27	161 27	1, 100 11	L 100 11	1001		17 001				345 31
0	11GR RV	11GR RV	11GR RV	11GR RV	ALBEMAR	ALBEMAR	MICHO	2144	BADIN				LABADIE
	en 27028	en 27028	en 27028	en 27028	nen 11192	11192	NIGGE TROUBLE		C:Open 1108/ BADIN	Base Case	Case	Base Case	9880E 190
	0:0	0.0	5.5	0.0	ċ	Ü	í	5 6	5	Base	Base	Base	io:
	R 138 1	7 345 1	1, 161 1	1 191 2	2 001				7 100 2	138 1	345 1	R 138 2	M 500 1
nateasur	9 11CLVRI	-0.56709 27561 14HILGO7 345 27563 14COLE 7 345 1	1 191 JUTHBUCK 5885 BUT JUTHBUCK 35855 12055 0	0.22031 20033 TONEMINE 133 2003; INC. 1512 2003 0 3000 0 3	A 47250 TOTAL TOTAL TOTAL TOTAL CONTROL OF THE CONT	Danago . I	C. C. STATE TO THE TO THE TANK OF THE TANK	ALBERTA	100 11192 ALBEMARL 100 2	345 27142 11SMITH	345 27012 119MITH	27028 11GR RV 161 27095 11GR RVR 138 2	0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1
steing O	138 2707	345 2756	118 26RS	3526 191	8611 001	100 1120		4111 007	100 1119	345 2714	345 2701	161 2709	500 1842
17	LONEWIVE	14WIL907	DNEWTVE	ONEWTOL	L DEWART.	TO COUNTY			BADIN	27012 11SMITH	27006 11HARDN	11GR RV	BPARADIS
	1 26855 1	9 27561 1	1 26855 1				******	NICHE I BOIL BOIL O	0,75158 11087 1	27012	27006	27028	0 18427
3007	-0.1683	-0.5670	2000	2000									
101	0.06209 -0.16831 26855 10NEWTVL 138 27079 11CLVRPR 138	0.28281	10447	7 TOT O		1,040.0	0.0403	-0.08878	0.08878	-0.05106	0.05106	0.04776	0.50000
													•
1	0 952			9.1501 0					0 1111	0 1270.7		_	_
di di caratta di carat	0.0051	1500		0.0051	0.0061	.0001	1500.0	1500.	1500.0	1500.0	1500.0	1500.0	1500.0
	apolite sa	00 0104	20000	GROUP_SB	Se door	Roup SB	RS_dnoxs	ROUP_SB	ROUP SB	GROUP SB	GROUP SB	HS alloas	3ROUP_SB
								_					
1	1500 OB W45000	200 00 WAEDO	20254	1500_OR_W45P00	Tago of washing	SUG OR WASPOD	1500_OR_W45200	1500_OR_W45200	.500_OR_W45P00	500 OR W45P00	1500 OR W45P00	SOO OR WASPOO	1500_OR_W45P00
	1500	1000		20051	70061	1500	1200	1500_(1500_(1500 0	1500 (1500	1500_0

Scenario 3

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W45P00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case: W45P00OS,sav, MON; PHC.mon; SUBSYST: PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

Broken Company Company

FCLTIC MULTIPLE TRANSFER REPORT: W45P006+UNIT2 PHC45.TRA HUST TILLS: ... MUST 3.20 *** MED, JAN 10 201 15:47 *** TILLS: 2004 SHOWER PRAX FOLD BASE CASE (PHC 345 FV TIE OPEN) TILLS: 1500 MANDER 1500 WM SPLIT BETWEEN WILSON 345 & PRADISE 500 MONITOR FILE: C.IVE-USERS/NOBOVY/PHC.con CONTINGENT FILE: C.IVE-USERS/NOBOVY/PHC.cub Exclude File: none

100KETVL 138 26892 100KETVL630.0 1 C:0pen 100KETVL 138 26879 100KEVV 138 1 C:0pen 110G RV 16 27095 110K RV 138 2 C:0pen 110K RV 16 27095 110K RV 138 1 C:0pen 110KETVL 138 26857 100KETVL 161 1 C:0pen 110KETVL 138 2745 110KETVL 161 1 C:0pen 110KETVL 138 2745 110KETVC 138 1 C:0pen 110KETVL 138 2745 110KETVC 138 1 C:0pen	TENTY PENTY TULE	0.61372 26855 108		0.61372 2685
7.13 26879 100RNDVW 138 1 7.13 56879 100RNDVW 138 1 161 27055 110R RVR 138 2 161 27055 110R RVR 138 1 7.13 5687 10NESTVL 161 1 138 2740 11EXITCHE9.0	2 3		0.61372 26855	
113 26879 100RNDVM 138 1 161 27095 110R RVR 138 2 161 27095 110R RVR 138 1 139 25657 100KEWTL 161 1 138 2740 11LESTTHE9, 0 138 27156 110HTO C 138 1	瞬	ñ	0.40677 26855	0.07492 0.40677 26855
161 27095 110R RVR 138 2 161 27095 110R RVR 138 1 1.138 26857 10NEWTVL 161 1 1.18 27240 11LETTCH69.0 1 1.188 27126 110HIO C 138 1		0,16225 26851 10CULLEY	0,16225.26851	3 -0.03624 0.16225.26851
26857 10NEWTVL 161 1 27240 11LEITCH69.0 1 27126 11OHIO C 138 1		0.77504 27028 11GR RV	0.17186 0.77504 27028 11GR RV	
27240 11LEITCH69.0 1 27126 110HIO C 138 1			-0.62960 26855	0.09988 -0.62960 26855
138 27126 110HIO C 138 1		6	0.02284 -0.31949 27109 11LEITC	-0.31949 27109
mond. O	> :	0.75819 27095 11GR RVR		. 0.05892
27564 14NATAL5 161 1	3 6	0.74075 27095 110R RVK 138		0.74075 27095
27141 118HREWS 138 1	, <u>2</u>		0.31949 27109	• -0.02284 0.31949 27109
27141 116HREWS 138 1	0	9	0.06288 27126	* 0.08203 0.06288 27126
14SKILMS 161 27564 14NATALS 161 1 C:Open	3 }	0.25946 27558 14SKI	e t	* -0.22626 0.25946 27558
27563 14COLE 7 345 1	9	-0.56714 27561 14WII	-0.56714 27561	-0.56714 27561
161 27553 14WILSOS 161 1	2	-0.42017 27028 11GR RV	-0.51841 -0.42017 27028 11GR	-0.42017 27028
	⊋.	0.21911 27216 11GR	0.21911 27216	* 0.03109 0.21911 27216
27559 14DAVIS5 161 1	- i	5	0.35439 27551	* 0.15310 0.35439 27551
JE 138 27079 ILCLVKPK 138 I C.Open		-0.16837 26855 10NEWIVL 138	-0.16837 26855	* 0.12194 -0.16837 26855
27042 1180 TAP 161 1		-0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1. 21. CO. 2. CO. 2. CO. 2. CO. CO. CO. CO. CO. CO. CO. CO. CO. CO	20072 05990 0-
F	. щ		0.32160 27061	+ 0.02385 0.32160 27061
11GR STL 138 27095 11GR RVR 138 1 C:Open	н.	-0.15549.27094 11GR STI	-0.14159 -0.15549.27094 11GR STI	-0.15549.27094
26886 10NEWTVL69.0 2		0.61372 26855 10NEWTVL 138		0.61372 26855
26886 10NEWTVL69.0 1		0.61372 26855 10NEWTVL 138	0,61372 26855	 0.02177 0.61372 26855
161 96354 STHMHIL 161 1			0.38364.31221	0.38364.31221
IVE 138 26879 10GRNDVM 138 I C:Open	r :	0.40677 26855 10NEWTVL		R 0.07629
26879 TOGRND'S 138 1	3 8	0.16225 26851 10CULLEX 138	-0,03761 0.16225 26851 10CU	
161 27095 11GR RVR 138 2	é		0.77504 27028	* 0.15903 0.77504 27028
161 27095 11GR RVR 138 1	110R RV	0.77439 27028 110	0.77439 27028	* 0.15890 0.77439 27028
L 138 26857 10NEWTVL 161 1	NEWE	-0.62960.26855 10	-0.62960 36855	* -0.09963 -0.62960.26855
F 161 31409 OVERTON 151 1 CTOPEN	CALIF		-0.06663 30233	* -0.08778 -0.06663 30233
27126 110HIO C 138 1	11db BVR	-0.31949 27109 ILLBIICA 138	0.02194 -0.31949 2/109 LI	* 0.02194
27126 110HIO C 138 2	GR R	0.74075 27095 11	0.74075 27095	0.74075 27095
-	30LB	-0.25946.27552 140	-0.25946.27552	* 0,22988 -0,25946,27552
27271 11RQ TAP69.0 1	R R	9	0.03739 0.21911 27216 110	0.21911 27216
110HIO C 138 27141 118HEENS 138 2 C.Open	HIO	56	0.06288 27126	+ 0.07953 0.06288 27126
14NATAL5 161 1			9 4	* -0.02194 0.31949 2/109
27552 14COLE 5 161 1	! 🗜	2 2	0.35636 26857	0.35636 26857
OVERTON 345 31409 OVERTON 161 1 C:Open	RIO	80	0.22078 31408	* 0.08693 0.22078 31408
161 27553 14WILSOS 161 1	ž	-0.42017 27028 11GR RV	28	* -0.52412 -0.42017 27028
7 345 27563 14COLE 7 345 1		5	5	-0.56714.27561
161 31222		121	0.71235 31221	0.71235 31221
161 31222 MUBBRLS 69:0 1		7	0.70816 31221	• 0.07824 0.70816 31221
138 96292 SMAKIES INI A			-0.65393 31024	* -0.09847 -0.65393 31024
SIZ40 MOKEAU 49:0 I	2 I	6	31239	0.04023 - 31239
138 2/0/9 IACLARFR 130 I	E		-0.16837 26855	* 0.12191 -0.16837 2685S
1 131 GET COST CACC	INKELD O	0.35439 27551	0.35439 27551	* 0.14930 0.35439 27551
27042 IIRQ TAP IST 1	11EARL	-0.09930 27025		-0.15403
161 31409 OVERTON 161 1	LIS VII	-0.25375 27205	0.03079 -0.25375 27205	* 0.03079 -0.25375 27205 -0.08004 - 30233
LT 161 30027 APCH FLT69.0 1	GH	226	0.29106 30026	0.29106 30026
29227 ZOBONNIE69.0 1	. 2	0.12.120 00101 0	000 00161 0	0.04330

CGRE: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W45P00OS: 1500 MW SPLIT BETVÆEN WILSON 345 PARADISE 500 LF CGRE: W45P00OS:SBY, MON; PHC.mon; SUBSYST: PHC.SUB; CONT: PHC.con; EXCL: PHC.EXC

E.S.

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W4SP00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500 LF Case: W4SP00OS sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXÖ

P. Comment

*	5.5	12.	1 18		÷.	, #.	0,0	3.			2 2	7	35	11		2,4	3.8	* 1	2 6	<u>.</u> .		10.	10		34	24	41:	ž.	- 10	16	3.24	90	10.	181	5.414	4.70%	2.234	-	11.	1	200	53.4	364	125	9.394	166	27.5	10.57%	22.154	19.764	4.294	7.76	87.6	177	-
		7 2.524			.2 157.73% 5 106.08%				•	8 8.63*					3 21.37%				.3 13.024	-					.3 25.02¥		-		7 19.15			11.064		3.981	4.1	۲.	2		.2 27.23			.1 28.534	93,3 11.964	6	4	25.99		-					70.0 0.04	75 2 157	13
	-138:1	44.7	. 601.		25.2	250.0	-128.3	161.2	-52.6	92.8	2. 2.	65.7	54.5	-51.5	6.69	-112.3	87.1	93.2	-55.3	144.2	168.8	-8.8	-165.4	87.8	370.3	-111.1	-23.3	-166.9	2,62	·		124.1	4			-137			-128.					-		-161.				7	-				
1/1:	9.99-	36.1	-43.1		55.4	279.7	-128.7	162.3	-54.8	91.5	2.5.	43.3	52.9	-18.8	82.6	8,88	75.2	8.66	-53.1	117.9	112.9	5.1	-104.1	25,1	196.7	-71.2	-9.8	-155.6	20.2	.5.5	4.3	106.1	31.8		-43.1	9.99-			-128.7	43.5	43.3	-18.8	20.2	112.9	75.2	-104.1	-216.3	117.9	196.7	-66.6	34.8	20.6	9.6		4.00
0.03363	-0.10607	0.01246	-0.09231		0.01280	0.01280	0.03322	-0.03209	0.05261	0.01555	0.02196	0.10134	0.00621	-0.12679	0.04094	0.03082	0.03730	-0.02081	-0.00621	0.07128	0.14113	-0.03219	-0.14113	-0.24662	0.35587	-0.37834	-0.02689	-0.02248	0.00640	-0.02689	0.02157	0.03189	-0.03917		-0.09798	-0.10337			0.03219	0.08262	0.08231	-0.11271	0.01324	0.12625	0.02664	-0.12625	-0.40076	0.04921	0.32064	-0.14335	0.05748	0.02046	0.08137	•	1224
243.5	-181.6	59.0	-179.0 164.8		40.7	50.9	-176.0	175.5	-84.7	158.0	-95.1	116.7	78.9	-148.4	157.0	- 94.4	157.8	142.0	-81.8	164.8	263.8	-58.7	-264.3	-226.7	597.9	-557.7	-59.0	-213.1	54.6	142.7	40.6	265.0	7.63.7	164.8	-179.0	-181.6	116.7		-176.0	175.5	116.7	-148.4	54.6	263.8	157.8	-264.3	-557.7	164.8	597.9	-181.6	142.7	265.0	6.59		,
221.0	-86.1	41.3	-73.7		4.68		-176.9	176.6	-86,9	156.3	6.86-	77.7	72.1	-121.0	139.6	-100.7	136.4	158.8	-72.2	130,2	1.6-	7.0	-160.3	-52.0	319.4	-175.8	-12.5	-199.0	39.0	71.2	19.5	175.8	26.1	117.9	7.57-	-86.1	43.S		-176.9	176.6	77.0	-121.0	0.66	159.6	136.4	-160.3	0.662-	130.2	319.4	-86.1	71.2	175.8	19.6		
765	27561 14WILSO7 34S 27563 14COLE 7 345	27061 11BONNIE 138	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1		26855 10NEWTVL 138 26886	26855 10NEWIVE 138 26886 10NEWIVE69.0	14HENDR4 138	26851 10CULLEY 138 26875 10ANGMND 138	27002 11ALCALD 345 27004 11BRWN N	29432 20MAYSVJ 138 29566 20SPURLK	27002 11ALCALD 345 27004 11BRWN N		E 138 27141 11SHREWS	26851 10CULLEY 138 26879 10GRNDVW	27095 11GR RVR 138 27126 110HIO C	27093 11GODDRD 138 27137 11RODBRN	C:Open 11101 BBAD CRR 500 11102 B50CR555E 500 1	29386 20JKSMIT 161 29500 20POWELL	27861 11BONNIE 138 27141	27561 14WIL907 345 27563 14COLE 7 345	23051 OSFULLER	DSMILLER	27028 11GR RV 161 27553 14MILSOS	27028 11GR RV 161 27553 14WILSOS	27028 11GR RV 161 27553 14WILSO5	27561 14WILSO7	05MILLBR	27064 118RWN N 138 27101 11HIGBY	27028 11GR RV 161 27042 11RQ TAP		138 27141 119HREWS	27561 14WILSO7 345 27563	05FULLER 138 23173	C:Open 27061 11BONNIB 138 27152 11W LEBA 138 1	561 14WILSO7 345 27563 14COLE 7 345	14WILSO7 345 27563 14COLE 7	Base Case	סצוכת לבנות	27560 14HENDRS 161 27617 14HENDR4	26851 10CULLEY 138		26851 10CULLEY 138 26879 10GRNDVW	27028 11GR RV 161 27042 11RQ TAP	27095 11GR RVR 138 27126 110HIO C	27028 11GR RV 161 27553	110R RV 161 27553 14WILSOS	27561 14WILSO7 345 27563 14COLE 7	27028	27561 14WILSO7 345 27563 14COLE 7	27563 14COLE 7	27028 11GR RV 161 27553 14WILSOS	27561 14WILSO7 345 27563	C:Open 27028 11GR RV 161 27553 14WILSO5 161 1 C:Open 27025 11EARL N 161 27042 11RQ TAP 161.1		C C Appendix of the Control of the C
-0.02352 26030 08BATESV 138 25182 07HUBBLB 138 1	11EARL N 161 27042	11BONNIE 138	11GR STL 138	27126 110HIO C 138 27141 115HK6WS 138 1	10NEWTVL 138	10NSWTVL 138 26886	0.41330 18012 SPARADIS 161 18691 5BOWL OR 161 1	10CULLEY 138 26879 10GRNDVW	20PITISB 161 29602 20TYNER	11FLEMIN 138 27093	11DBLVIN 161 27045 11WI TAP	27028 11GR RV 161.27095 11GR RVR	0.77439 27028 11GR RV 161 27095 11GR RVR 138 1	2/109 ILLEITCH I38 2/240 26855 10NEWTVL 138 26857	11GR RVR 138 27126 11OHIO C	11FARM T 138 27143 115PENC	11172 SROBBINS 161 18040 SSANIEET 161 1	27034 11LR TAP 161 27045 11WI TAP	27109 11LEITCH 138	27126 110HIO C 138 27141	24067 05GRAYSB69.0 29198	27552		26857 10NEWIVL 161 27552	27561 14WILSO7 345 27563	11GR RV 161 27553 14WILSOS	11084 SNANTAHA 161 11172 SROBBING 161 1	11BKR LN 138 27064	27216 11GR RVR69.0 27271	26855 10NEWTVL 138 27079			20ARGTM 138 29198	11BONNIE 138 29227	27126 110HIO C 138 27141 119HKEMS 138 1	161 27042	11GR RV 161 27095 11GR	. 27028 11GR RV 161 27095 11GR RVR 138 1	0.40677 26855 10NEWIVE 138 26879 10GRNDVW 138 1	10CULLEY 138 26879	11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV 161 27095 11GR RVK 138 1 -0 40040 24845 10NEWTVI, 138 26857 10NEWTVI 161 1	27216 11GR RVR69.0 27271 11RQ TAP69.0	27095 11GR RVR 138 27126	14COLE 5 161 27564	0.74075 27095 11GR RVR 138 27126 11OHIO C 138 2	11GR RV 161 27553	26857 10NEWTVL 161 27552	27126 110HIO C 138 27141 115HRBWS	-0.56714 27561 14MILSO7 345 27563 14COLB 7 345 1	10NEWTVL 138 27079	27551 14RRID 5 161 27559 14DAVISS		161	
0.03505				0.06469 -	0.02066	0.02066	0.02320	0.03359	0.05110	0,02045	0.02077	0.18026	0.18011				-0.08029 -	-0.05246	-0.02700				-0.13704	-0.38166		-0.52847	-0.08029 -	-0.02237				0.03808	-0.17422	0.02693	0.07128 -	-0.13871	0.10173 -	0.10134 -	0,06509	-0.03238	0.14642	0.14629	0.04624	0.04944	0.23024	0.04830	-0.53548	-0.35767	0.06937	0.54793	-0.17519	0.13410	0.27955	0.10285	
642.7 *	674.1 *	692.5 *	710.8 *	725.3	-2354.9 *	-1863.0 *	-1832.3 *	12.3 K	41.9 R	83.2 *	181.9 R	119.5	220.2	257.8 *	262.9	282.8 R	293.2	320.8 R	355.0 *	368.9 *	371.1 •	395.9	433.7	457.8	487.9	489.5 *	497.1 *	502.7	506.3 *	542.9 +	548.8 *	553.4 *	630.6	657.8 +		686.4 *	719.2	723.8	13.7 R	32.8 R	270.2 *	271.0 *	338.2	368.1 *		444:4 *	451.7	488.6	498.1 *	508.3	545.1 •	665.5	676.7	742.6 *	
750.0				750.0	750.0 -2			750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.057	750.0	750.0	750.0	0.057	
GBO(19 4R 750.0 642.7 * 0.03505 -0.02352 26	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_5B	gRoUP_58	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB		GROUP_SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP SH	GROUP 5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP 5B	GROUP_SB	GROUP_5B	group_5B	GROUP 5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB	as altoas	GROUP 6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP 68	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	
INIT'S DUCAS	UNIT2 PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	INIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2 PRC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	2000 CTIVE	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	INIT'S PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) WASP00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500 LF Case: WASP00OS aav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

\$ T

		_					_												_													.		. ,-										_		<u></u>	<u>_</u>			-	_			-	-	
30.294		71.861	33.021			14.47	£ '	16 96 91	20 2		4.76	46,464	24.361		-			465.6				26.49%	_		1.27		107.474		15	78.46%	Ę	12		*66.EI 1	-		23.714	7 23.754	7 22.90\$	н	968.6 6				0.704	0.294		H	3 30.394				17			
-128.3	161.2	65.B	.51.9	54.5	93.3	87.1	168.1	2.55.	24.0	-164.7	100.4	-86.2	-403.3	74.2	70.3	122.7	-140.2	16.1	-104.2	-104.3		162.3	411.0	43.6	338.4		31.5	-128.3	161.2	8. 59 8. 19	-52.5	54.6	93.3	87.1	143.0	167.0	-163.6	371.7	-400.7	23.1	122.9	16.44	-137.3	-107.9			25.2	31.	-128.3	1.59	. 69	-52.0		87.1	i	
-128.7	162.3	43.5	43.3	52.9	82.6	75.2	112.9	.53.1	20.2	-104.1	95.4	25.1	-216.3	196.7	34.8	106.1	9.99-	£ ,	1.96.2	-76.2		162.3	196.7	25.1	6.2	;	4. 25.	-128.7	162.3	43.5	18.8	52.9	82.6	75.2	117.9	112.9	-104.1	1.55.1	-216.3	20.5	106.1	34.8	9.99-	-43.1			55.4	55.4	-128.7	43.5	43.3	-18.8	52.9	75.2		
0.03430	-0.03325	0.09289	0.09254	0.00523	0.03570	0.03253	0.13770	-0.00523	0.06155	-0.13770	.0.01095	-0,23791	-0.38013	0.34734	0.06303	0.02827	-0.11612	0.01835	0.01316	-0.03903		0.00001	13968	0.02588	0.44989		0.01339	0.03672	-0.03566	0.09869	0.09832	0.00548	0.03453	0.03147	0.05940	0.12696	-0.12696	-0.23856	-0.36717	0.00528	0.02899	0.05808	-0.09996	-0.08755			0.01278	0.01278	0.03444	0.09308	0.09273	-0.12291	0.00527	0.03580	0.03202	
176.9	175.5	116.7	116.7	-148.4	157.8	157.8	263.8	-81.8	164.8	-264,3	164.6	-226.7	-557.7	597.9	142.7	265.0	-181.6	40.6	59.0	-154.1		275.5	-176.0	226.7	597.8		7.04	-176.0	175.5	116.7	116.7	78.9	157.8	157.8	-81.8	263.8	-264.3	-226.7	7.755-	54.6	265.0	142.7	40.6	-179.0	116.7	116.7	40.7	50.9	-176.0	175.5	116.7	-148.4	78.9	157.8	157.8	
4.68	176.6	17.1	0.77.	-121.0	139.6	136.4	169.0	-72.2	130.2	1160.3	152.1	-52.0	-299.0	319.4	71.2	175.8	-86.1	19.5	41.3	-112.6		188.3	-154.1	102.2	120.3		4. 6. 6.	-176.9	176.6	1.17	0.77	72.1	139.6	136.4	130.2	169.0	-160.3	-52.0	319.4	39.0	175.8	71.2	19.5	73.7	43.5	43.3	4.68	4.68	-176.9	176.6	77.0	-121.0	72.1	139.6	136.4	
26855 10NEWIVE		27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR	26851 10CULLEY	110HIO C 138	27095 11GR RVR 138 27126 110HIO C	27028 11GR RV 161 27553 14WILSOS 161	27061 11BONNIE 138 27141 11SHREWS 138	27561 14WILSO7 345 27563 14CoLE 7	C:Open 27028 11GR RV 161 27042 11KQ 1AF 161 I	27002 11ALCALD 345 27011 11PINEVI 345	27028 11GR RV 161 27553 14WILSOS 161	27561	27028 11GR RV 161 27553 14WILGOS	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	27561 14WILSO7 345 27563 14COLB 7	27561 14WILSO7 345 27563 14COLE 7	27061 11BONNIE 138 27141 11SHREWS 138	27061 11BONNIE 138 27152 11W LEBA 138	G:Open 11192 ALBEMARK 100 11291 OAKBORO 100 1	TITLE WINDERSON TO THE TANK OF THE PARTY OF	27561 14WILSO7 345 27563 14COLE 7	27561 14WILSO7 345 27563 14COLE 7	27561 14WILSO7	14COLE 7		26855 10NEHTVC 138 26886	C:Open 26855 10NEWIVL 138 26886 10NEWIVLES.U 2	26851 10CULLEY 138 26875	27028 11GR RV 161 27095	27028 11GR RV 161 27095 11GR RVR	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	11GR RVR 138 27126 11OHIO C	27095 11GR RVR 138 27126 11OHIO C	27061 11BONNIE 138		27028 11GR RV 161 27553 14MILSOS	27028 11GR RV 161 27553 14WILSOS	27028 11GR RV	11RQ TAP	27561 14WILSO7 345 27563	27028 11GR RV 161 27553 14WILSOS	11BONNIE 138 27141 11SHREWS	345 27563 14COLB		Dage Case		C:Open 26855 IONEMIVE 138 26886 IONEMIVE5:0 2	27560 14HENDRS 161 27617 14HENDR4 138	26851 10CULLEY 138 26875	27028 11GR RV	1-0 GRNDVW	27061 11BONNIE 13B 27141 115HREWS	27095		C:Open 27095 11GR RVR 138 27126 11CHIO C 138 1
10NEWIVL 138 26886 10NEWIVL69.0	0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	26855 10NEWIVL 138 26857	-0.31949 27109 11LEFTCH 138 27240 11LEFTCH69.0 1	11GR RVR 138 27126 11OHIO C	27552 14COLE 5 161 27564 14NATAL5	27109 11LEITCH 138 27141 11SHREWS	27126 110HIO C 138 27141	27216 11GR RVR69 0 27271	0.25946 2/558 145KLMS 161 2/564 140AtAus 101 1	2/018 IIAUCALD 161 2/02/ IIFANDEL 26857 IONEWTVL 161 27552 14COLE 5	27028 11GR RV 161 27553 14WILSOS	27561 14HILSO7 345 27563 14COLE 7	11087 BADIN 100 11192	26855 10NEWIVE 138 27079 11CLVKPK	11EARL N 161 27042 11RQ TAP	27205 118 VIEW69.0 29571	27061 11BONNIE 138 29227 20BONNIE	11192 ALBEMARL 100 11291	0.47727 11192 ALBEMARE 100 11291 DAKBORO 100 1	0.13226 26851 10CULLEY 138 26879	-0.12902 26855 10NEWIVE 138 26879 10GRNDVW	0.64389 27561 14MILSO7 345 27563 14COLE 7	0.41731 26857	GIBURT TREET	0.61372 26855 10NEWTVL 138 26886	0.61372 26855 10NEWTVL 138 26886		0.15225 26631 10C01051 136 20013 10C01051	0.77439 27028 11GR RV 161 27095	-0.62960 26855 10NEWIVE 138 26857	-0.31949 27109 1158fTCH 138 27240 1158ITCH69.0 1	0.74075 27095 11GR RVR 138 27126	0.31949 27109 11LEITCH 138 27141 115HREWS	0.06268 27126 110HIO C 138 27141	.0.25946 27552 14COLE S 161 27564 14NAIALS 161 1	0,35636 26857 10NEWTVL 161 27552	-0.56714 27561 14HILSO7 345 27563	,	0.21911 2/216 11dK KVK65.0 2/2/1	0.16837 26855 10N8WTV 138 27079	-0.25375 27205 11E VIEW69.0 29571	-0.09930 27025 11EARL N 161 27042	-0.15549 27094 11GR STL 138	- 27028 11GR RV 161 27095 11GR KVK 138 - 37028 11GR RV 161 27095 11GR RVR 138		0.61372 26855	0.61372.26855 IONEMIVE 138 25886 0.40677.36856 IONEMIVE 138 26879	0.16225 26851 10CULLEY 138 26879 10GRNDVW	0.77504 27028 11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV 361	-0.62960 26855 10NEWTVL 138 26857	0.75819 27095 11GR RVR 138 27126	0.15613 £1050 £160 NM TOT 100.10	
0.02056	0.07229	0.16461	0.16448	-0.10187	0.02322	0.05897	0,23632	-0.02322	0.08339	0.03591	-0.23632	11/20.0	-0.52607	0.56293	-0.10659	0.12703	-0.15061	0.03264	0.02558	-0.05778	-0.05773	0.04492	-0.04402	0.62926	0.16759	0.646/9	0.02160	0.02160	0.07602	-0.03691	0.17474	-0.09912	0.02270	0.05705	-0.02270	0.08156	0.2222	-0.36940	0.56069	-0,51525	0.02908	0.11990	0.03189	-0,13496	-0.14235	0.09869	1000	0.02062	0.02062	-0.03473	0.16496	0.16482	-0.10189	0.02331	0.0000	
1 -1872.2 * . 0	12.4 R	240.3 +	241.1 *	269.7	295.7	364.0	401.1	412.6	414.4 *	435.5 •	440.0	9.69.6	491.7	494.7 *	520.7 +	563.1	5.88.6	645.6 •	692.4 •	716.0 •	719.5	-283.9 *			713.0 *	738.2	-2252.4 *	-1781.8 +	11.8 R	28.8 K	226.9 *		302.5 *	311.6			426.6 *		496.7 *	502.1	537.8	579.9	660.7 *	707.6	739.3 *	741.3	740.0	-2358.9 *	-1866.1 *	30.6 R	239.8	240.6 *	269.6	300 6 4	300.0	
750.0 -1	750.0	750.0			750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750,0	750.0	750.0		750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0			750.0	750.0	750.0	750.0	750.0	0.067	
GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_78	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	group ab	GROUP_8B	GROUP BB	GROUP_8B	GROUP_88	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	GROUP_SB		00 01700	are a source
UNITZ_PHC45 GROUP_7B	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PRC45		UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	SPURG CALL	ONITZ PRC45

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OS; 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case; W4SP00OS,sav; MON; PHC,mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

mara-sevel	_	_					_	_			_	_		_	_	_
Q.	31.154	9.641	17.044	20.66%	27.61	46.62%	24.38	24.04	3 784	16.614	9.19	10.64	9.54	8.55	2.384	
Politica	168.0	-55.2	143.4	24.0	-164.7	-86.3	403.3	368.5	100.5	70.2	122.7	-74.2	-140.2	16.1	45.1	
THE BRES.	112.9	-53.1	117.9	20.2	-104.1	25.1	-216.3	196.7	95.4	34.8	106.1	-42.5	-66.6	6.3	36.1	
Prof	0.13732	-0.00527	0.06173	0.00872	-0.13732	-0.23834	-0.38026	0.34735	0.01033	0.06291	0.02830	-0.05277	-0.11594	0.01643	0.01296	
- Company	263.8	-61.8	164.8	54.6	-264.3	-226.7	-557.7	597.9	164.6	142.7	265.0	-129.9	-181.6	40.6	9.65	
the profitte craims of two or regards and said	169.0	-72.2	130.2	39.0	-160.3	-52.0	0.299.0	319.4	152.1	71.2	175.8	P. P.C -	-86.1	19.5	41.3	
	3 14WILSOS 161 1	1 11SHREWS 138 1	3 14COLE 7 345 1	2 11RQ TAP 161 1	161 27553 14WILSOS 161 1	161 27553 14WILSOS 161 1	3 14COLE 7 345 1	161 27553 14WILSOS 161 1	1 11PINEVI 345 1	161 27553 14WILSOS 161 1	3 14COLE 7 345 1	100 11192 ALBEMARL 100 1	13 14COUR'7 345 1	1 11SHREWS 138 1	2 11W LEBA 138 1	
Containgency	C:Open 27028 11GR RV 161 27553 14MILSOS 161 3	C:Open 27061 11BONNIE 138 27141 115HREWS 138	27561 14WILSO7 345 27563 14COLE 7 345	27028 11GR RV 161 27042 11RQ TAP 161 1	27028 11GR RV 161 2755	27028 11GR RV 161 2755	C:Open 27561 14WIL907 345 27563 14COLE 7 345 1	27028 11GR RV 161 2755	27002 11ALCALD 345 27011 11PINEVI 345 1	27028 11GR RV 161 2755	27561 14WILGO7 345 27563 14COLE 7 345	BADIN	27561 14HILSO7 345 27563 14COLE 7 345	27061 11BONNIE 138 27141 11SHREWS 138	27061 11BONNIE 138 27152 11W LEBA 138	-
	C:Open 27028	C:Open 27061	C:Open 27561	C:Open 27028	C:Open 27028	C:Open 27028	C:Open 27561	C:Open 27028	C:Open 27002	C:Open 27028		C:Open 11087	C:Open 27561	C:Open 27061	C:Open 27061	
nimitting constains	27564 14NATAL5 161 1	27141 119HREWS 138 1	27141 11SHREWS 138 1	27271 11RQ TAP69.0 1	27564 14NATALS 161 1	27552 14COLE 5 161 1	161 27553 14WILBOS 161 1	27563 14COLE 7 345 1	27027 11FARLEY 161 1	27079 11CLVRPR 138 1	. 27559 14DAVISS 161 1	100 11192 ALBEMARL 100 2	27042 11RQ TAP 161 1	29571 20STEPHN69.0 1	. 29227 20BONNIB69.0 1	
7,000	-0.25946 27552 14COLE 5 161 27564 14NATAL5 161	0.31949 27109 11LEITCH 138 27141 118HREWS 138	0.06288 27126 110HIO C 138 27141 11SHREMS 138	0.21911 27216 11GR RVR69.0 27271 11RQ TAP69.0	0.25946 27558 148KILMS 161 27564 14NATALS 161	0,35636 26857 10NEWTVL 161 27552 14COLE 5 161	-0.42017 27028 11GR RV 161	-0.56714 27561 14WILSO7 345 27563 14COLE 7 345	0.22525 27016 11ALCALD 161 27027 11FARLEY 161	-0.16837 26855 10NEWTVL 138 27079 11CLVRPR	0.35439 27551 14REID 5 161 27559 14DAVIS5	0.75158 11087 BADIN 100	-0.09930 27025 11EARL N 161 27042 11RQ TAP 161	-0.25375 27205 11E VIEW69.0 29571 20STEPHN69.0	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0	
anor.	9															
101	0.23598	۲	0.08357	0,03584	Ī		٠		0.02497	0.12694	0.15140	-0.09243	-0.15043	0.03276	0.02547	
5 to 10 to 1	401.7 *	411.1	413.5 +	436.3 *	440.7 *	467.4 *	491.6 +	494.6	499.0 *	563.6	589.4	* 5.009	634.8	643.3 *	695.5	
Terminal des	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	150.0	750.0	750.0	750.0	750.0	750.0	750.0	
	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SH	GROUP SB	GROUP SB	GROUP SB	BS dnoap	GROUP	
Book	UNIT2 PHC4S	UNITZ PHC45	UNIT2 PHC45	UNIT2 PHC45	UNITZ PRC45	UNITZ PHC45	UNIT2 PHC45	UNITZ PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2_PHC45	_				

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OW: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case: W4SP00OW sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL; PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: W45P000W+UNIIZ_FHC45.IKA	MUST Title: *** HUST 3.20 *** THU, JAN 11 2001 9:47 ***	Titlal: 2004 WINTER PEAK BCAR BASE CASE (PHC 345 KV TIE OPEN)	Title2: W4SP000M: 1500 MH SPLIT BETHEEN WILSON 345 & PARADISE 500	Monitor File: C:\Bv-USERS\NOBODY\PHC.mon	Contingency File: C:\BV-USERS\NOBODY\PHC.con	Subsystem File: C:\BV-USERS\NOBODY\PHC.sub	Exclude File: none	
--	---	---	---	--	--	--	--------------------	--

From	10		De 14			Boom Pred	54 0 51 8	8 0 01322	39.7	32.1	54.441
NIT2_PHC45	ALL	750.0	574.1	0.02133	26855 IONEMIVE 138 26886 IONEMIVES, 0 2	• •			39.7	37.2	33.11%
NITZ_PHC4S	ALL B	750.0	46.54	0.16847		, ,	7		70.2	74.6	89.60£
NIT2 PHC45	ALL B	750.0	47.3 •	0.16832	27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV	7			6.69	74.4	89.441
NIT2_PHC4S	ALL_B	750.0	119.6 *	0.05883	27095 11GR RVR 138 27126 11OHIO C 138 1 C:Open 27095 11GR RVR 138 27126	7			5.76	101.6	21.614
NIT2_PHC45	ALT_B	750.0	160.9	-0.05098	27079 11CLVRPR 138 27094 11GR STL 138 1 C:Open	1.181. 1861 H	.1 -189.3	0.00297	143.3	137.5	25.10%
NITZ_PHC45	ALL B	750.0	166.9 R	17570.0-	0.42491 26851 10CULLEX 138 26879 10GRNDV# 138 1	138 1	٠		-242.4	-259.3	19.431
NIT2_PHC45	ALL B	750.0	188.5 189.5	0.05748	11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 11GR RVR 138 27126	138 1			88.8	94.8	18.741
NITZ PHC45	ALE B	750.0	192.7 *	-0.10642	27006 11HARDN 345 27012 11SMITH 345 1 C:Open 27099 11HARDBG 138 27100	138 1	Y	•	-240.7	-257.9	19.384
NIT2 PHC45	ALL	750.0	255.9 *	0.02293	27109 11LEITCH 138 27240 11LEITCH69.0 1 C:Open 27061 11BONNIE 138 27141	138 1			54.3	0.00	13.144
NIT2_PHC4S	ALL B	750.0	472.5 +	-0.51622	27028 11GR RV 161 27553 14WILSOS 161 1 C:Open 27561 14WILSO7 345 27563	r .			1.235.1	2.504-	22.474
NIT2_PHC45	ALL_B	750.0	487.2	0.12140	26855 10NEWIVL 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161 27553	.	83.1 142.2	2 0.05939	2.581	360.9	23.63%
NIT2_PHC45	ALL_B	750.0	495.9 *	0,56061	27561 14WILSO7 345 27563	d -	•	•	-7.1	-73.0	25.18%
NIT2_PHC45	ALL B	750.0	540.7	-0.20320	161 27553		·	•	46.3	-85.7	29.961
NITZ_PHC45	ALL B	750.0	553.8	-0.36968	27028 1108 RV 161 27095 1108 RVR 138 2 Base Case		70.2 132.2	2			7.04
NIT2 PHC45	- TIV	750.0	657.7	0.09471 -	11GR RV 161 27095 11GR RVR 138 1	9				;	6.61
NIT2 DHC45	- 1	750.0	663,8 4	0.22561	14COLE S 161 27564 14NATALS 161 1 C:Open 27028 11GR RV 161				123.5	209.8	5.814
NIT2 PHC45	ALL B	750.0	675.6	0.03227	27205 11E VIEW69.0 29571 20STEPHN69.0 1	-			4	21.8	1 1 1
NIT2_PHC45	ALL B	750.0	704.8 •	-0.22561	14SKILMS 161 27564 14NATAL5 161 1			-0.13002	9. 611-		0.734
NITZ_PHC45	ALL_B	750.0	724.7	-0.08954 -		-242.4	240.7 -306.0	, 0			0.611
NIT2_PHC45	ALL_B	750.0	729.7	- 0.08954 -	T CLC WITHOUT 710/2 CLC						
NITS PHC45	SECUTO 18	750.0	-563.1	0.02174	0.61371 26655 10NEWTVL 138 26886 10NEWTVL69.0 2 C:Open 26855 10NEWTVL 138 26886 10NEWTVL69.0				39.7	32.1	55.034
NIT2 PHC45	GROUP 1B	750.0	-481.3 *	-0.04151	31221 MOBERLY 161 96354 STHMHIL 161 1 C:Open 96150 7MCCRED 345 96162			•	-222.1	196.3	15.285
NITZ PHC45	GROUP 1B	750.0	-413.8 •	-0.04558	1 C:Open 30593 FRKN 138 30650		5.0 -286.2	2 -0.02337	4 5 5 4 T	-146.7	18.514
NIT2_PHC45	GROUP_1B	750.0	-413.8 *	-0.04558	FRKN 138 30650 GRAY SUM 138 2 C:Open 30593 FRKN 138 30650		•		52.1	44.2	87.05%
NIT2_PHC45	GROUP_1B	750.0	-194.9 *	0.06905	MOBERLY 161 31222 MOBERLY 69.0 2 C:Open 31221 MOBERLY 161 31222	н (0.6/ 6.88		51.0	43.5	85.851
NIT2_PHC45	GROUP_1B	750.0		0.06865	31221 MOBERLY 161 31222 MOBERLY 69.0 1 C:Open 31221 MOBERLY	• •			39.7	37.2	33.62
NITZ_PHC45	GROUP_1B	750.0	7	0.02174	TONEWTUL 138 26886 10NEWTUL69.0 1 C:Open 26855 10NEWTUL 138	•	-		70.2	74.6	84.531
NIT2_PHC45	GROUP_1B	750.0		0.15954	11GR RV 161 27095 11GR RVR 138 Z C:UPen 27026 11GR RV 161				6.69	74.4	84.39%
NIT2_PHC45	GROUP_1B	750.0		0.15941	161 2/095 11GR RVR 136 1 C:Open 2/095 11GR RVR 138	. 61	164.8 171.8	8 0.03379	97.5	101.6	20.871
NIT2_PHC45	GROUP 18	750.0		0.05713	110K KVK 138 27128 110K STL 138 1 C:Open 27012 11SMITH 345		'	•	-36.7	-36.8	16.564
NIT2_PHC45	GROUP IB	750.0	199.6	-0.05272	10CHILEY 138 26879 10GRNDVW 138 1 C:Open 26861 10ABBRWN 138				143.3	137.4	25.614
NITZ_PHC45	GROUP_1B	750.0	104	0.05582	11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 11GR RVR 138	138 1			8.88	8.4.6	18.01
MITTO PHOAS	GROUP 18	750.0		-0.10215	11SMITH 345 27142 11SMITH 138 1 C:Open 27099 11HARDBG 138	138 1			- 242.4	-258.D	18.34
NIT2 PHC45	GROUP 1B	750.0		-0.10215	11HARDN 345 27012 11SMITH 345 1 C:Open 27099 11HARDBG 138	1381	285.5 -306.0	0.08634	54.1	5.55	12.36%
NITZ PHC45	GROUP_1B	750.0	266,1 *	0.02204	11LBITCH 138 27240 11LEITCH69.0 1 C:Open 27061	138 1	·	•	-25.4	-51.9	39.64
NIT2_PHC45	GROUP_1B	750.0		-0.09152	MARIES 138 96292 SMARIES 161 1 C:Open 31609 KIVMIN 1 158 51935				188.6	216.7	12.33\$
NIT2_PHC45	GROUP_1B	750.0		0.08831	OVERTON 345 31409 OVERTON 141 I C.Open 30677 GITHRIE 161 30805	66 0'69	49.5 83.9		38.8	66.2	30.791
NIT2_PHC45	GROUP_18	750.0	429.0	16080.0	161 27553 14WILSOS 161 1 C:Open 27561 14WILSO7 345		313.5 -557.4		-235.1	-411.5	26.784
NIT2_PHC45	GROUP 18	750.0		31221.0	10NEHTVL 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV	1			2.64	6.17	10.22
NITZ_PHC45	GROUP, AB	750.0		0.56029	14WILSO7 345 27563 14COLE 7 345 1 C:Open 27028 11GR RV 161 27553				186.5	72.4	26.594
NIIZ_FHC45	GBOUP 18	750.0		-0.20637	10NEWTVL 138 26857 10NEHTVL 161 1 C:Open 27028 11GR RV 161 27553		-58.9 -168.8	-0.122/5	46.3	-84.8	31,85%
NIT2 PHC45	GROUP 18	750.0		-0.37580	-		37.5 -242.		•		10.134
NITZ PHC45	GROUP 18	750.0	563.6	0.04066 -	MOBERLY 161 31222 MOBERLY 69.0 2		7	00060.0- 0.	-26.7	-91.9	2.578
NIT2_PHC45	GROUP_1B	750.0	724.7	-0.14676	0.43126 30957 LKSIDE 1 138 31024 MARIES 138 1 C:Upen 30532 ELUON 101 50100 JENNIN						
					C:Open 26855 10NEWTVL 138 26886 10NEWTVL69.0 2 C:Open 26855 10NEWTVL 138 26886 10NEWTVL69.0				39.7	32,1	54.494
NIT2_PRC45	GROUP_2B	750.0		0.02137	10NEWTUT, 138 26886 10NEWTUL69,0 1 C:Open	7			19.7	7 7	72 47
MIT2_PHC45	GROUP_28	750.0	101.	0.14003	11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV 161			. 0.07902	2.07	74.47	73.321
DAITZ_FHC45	GROUP 2B	750.0		0.13991	11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161	71	124.2 132.2		57.5	101.6	17.691
NITZ PHC45	GROUP 2B	750.0	_	0.04986	27126 110HIO C 138 1 C:Open 27095 11GR RVR 138		1	,	-36.7	-37.6	15.55
JNIT2 PHC45	GROUP_2B	750.0	163.4	-0.05018	11CLVRPR 138 27094 11GR STL 138 1				143.3	136.9	25.50%
MIT2 PHC45	GROUP_2B	750.0	164.9 R	-0.07664	-0.42491:26851 10CULLEY 138 26879 10GRNDVW 138 1 C:Open 27860 14HENDK5 161 2/64/ 14HENDK4 530						

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OW: 1500 MW SPLIT BETWEEN WIL SON 345 PARADISE 500
LF Case: W4SP00OW sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

() () () () ()

1118ARDN 1116 TRT 11118.TTCH 11118.TTCH 11108.TTCH 14411807 14411807 1108.TTCH 11108.TTCH 11108.TTCH 11108.TTCH 11108.TTCH 11108.TTCH 144114.TTCH 11108.TTCH 144114.TTCH 11108.TTCH 144114	R R 0.06213 0.02466 0.12466 0.12413 0.12613 0.13622 0.03622 0.03622 0.03622 0.03622 0.03622 0.03623 0.03623 0.03623 0.03199 0.02199 0.02160	Ţ.	UNITZ_PRIC45 GROUP_48
27021 110MUTN 345 1 24620 05NWHTN 69.0 1 27240 111ETCH69.0 1 27251 140LEGO 141 1 27051 140LEGO 141 1 27051 140LEGO 141 1 27052 140CLE 7 345 1 27052 140CLE 7 345 1 27052 140CNEW 130 1 27053 140CNEW 131 1 27053 140CNEW 131 1 27053 140CNEW 131 1 27053 140CNEW 131 1	R 0.06213 0.02484 0.02486 0.12413 0.12413 0.2619 0.02570 0.02570 0.02570 0.02570 0.02570 0.02570 0.02570 0.023199		GROUP_48
27021 115MTTR 345 1 24620 05NMTTR 69.0 1 27520 1116TTCH69.0 1 27520 1116TTCH69.0 1 27550 140TLGOS 161 1 27050 140TLGOS 161 1 27050 140TLGOS 161 1 27050 140TLG 5 161 1 27050 140TLG 8 161 1 27050 140TLG 8 161 1 27051 140TTR 136 1 27051 140TTR 346 1	R 0.06213 0.02464 0.02464 0.02466 0.12413 0.02619 0.02619 0.02570 0.02570 0.02570 0.02570 0.02570 0.02570 0.02570 0.02570		GROUP_48
27021 115MTTR 345 1 24620 05NMTTR 69.0 1 27240 1116TTCH69.0 1 27251 116TTCH69.0 1 27051 116TCMER 138 1 27052 116TCMER 138 1 2667 10NBTVL 161 1 2752 14COLE 5 161 1 2752 14COLE 5 161 1 2754 115MTTR 136 1 27052 1116MTTR 136 1 27052 1115MTTR 345 1 27054 1115MTTR 345 1 27054 1115MTTR 35 1	R 0.06213 0.02464 0.02464 0.02464 0.02413 0.02619 0.02619 0.03570 0.03570 0.03570 0.03570 0.03570 0.03570 0.03570 0.03570		GROUP_4S
27021 ILBNUTH 345 1 C:Open 27095 ILHANDBG 24630 OSNHHIM 65.0 1 C:Open 27095 ILHANDBG 27240 ILLBLTCHE65.0 1 C:Open 27061 ILBNUTE 27240 ILLBLTCHE65.0 1 C:Open 27061 ILHANDBG 27075 ILCLVRRR 138 1 C:Open 27081 ILHANDBG 27075 ILCLVRR 138 1 C:Open 27084 ILHANDBG 27052 ILCLVRR 138 1 C:Open 27084 ILHANDBG 27052 ILCLVRR 138 1 C:Open 27084 ILHANDBG 27075 ILLB CR 1 C:Open 27084 ILHA	R 0.06213 0.02941 0.02941 0.12413 0.05619 0.02619 0.02619 0.02570 0.02570 0.02570 0.02570		GROUP_48
27021 ILRWITH 345 1 C:Open 27095 ILRAPDEG 2459 OSEWHITH 850 1 C:Open 27095 ILRAPDEG 27030 ILRAPDEG 27030 ILRAPDEG 27040 ILRAPDEG 27040 ILRAPDEG 27040 ILRAPDEG 27040 ILRAPDEG 27040 ILRAPDEG 27055 ILRAPD	R 0.06213 0.02464 0.02486 0.52199 0.12413 0.26219 0.02619 0.03570 0.10153		GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48
27021 ILRWITH 345 1 C:Open 27095 ILRWDBG 24639 OSDWHTH 65.0 1 C:Open 27095 ILRWDBG 27262 ILRHITCHG65.0 1 C:Open 27061 ILRDWNIE 27263 IAWILGOS 141 1 C:Open 27061 ILWILGONIE 27053 IAWILGOS 141 1 C:Open 27028 ILGW RV 27553 IAWICGOS 345 1 C:Open 27028 ILGR RV 27553 IAWICGOS 345 1 C:Open 27028 ILGR RV 27553 IAWICGOS 161 1 C:Open 27028 ILGR RV 27554 IAWICGOS 161 1 C:Open 27028 ILGR RV 27555 IAWICGOS 161 1 C:Open 27028 ILGR RV 27554 IAWICGOS 161 1 C:Open 27028 ILGR RV 27555 IAWICGOS 161 1 C:Open 27028 ILGR RV 27555 IAWICGOS 161 1 C:Open 27028 ILGR RV 27554 IAWICGOS 161 1 C:Open 27028 ILGR RV 27555 IAWICGOS 1 C:Open 27028 ILGR	R 0.06213 0.0241 0.02486 0.02489 0.12413 0.056919 0.056919 0.056919 0.056919 0.05570		GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48
27012 IISMITH 345 1 C:Open 27095 IIHARDBG 27124 IIHORTO C.139 C:Open 27095 IIHARDBG 27124 IIHORTO C.139 C:Open 27095 IIHARDBG 27039 IILCAVER 139 1 C:Open 2704 IIEGOR 2705 IICAVER 139 1 C:Open 2704 IIGR V 2705 IICAVER 139 1 C:Open 2702 IIGR V 2705 IICAVER 139 1 C:Open 2702 IIGR V 2705 IICAVER 130 C:Open 2702 IIGR V 2705 IICAVER 141 C:Open 2702 IIGR V 2705 IIGR V 27	R 0.06213 • 0.02941 • 0.02946 • 0.12413 • 0.12413 • 0.20967 • 0.036622		GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48
11HARDN 145 27012 118HITH 145 1 C:Open 27099 11HARDNO 11GR RVB 11EGR RVB 11E	0.06213 0.02941 0.02486 0.152199 0.14413 0.5619		GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48 GROUP_48
1144ARDN 145 27012 118HTH 145 1 C:Open 27095 11HAADDG 118C 128C 116HTH 150.0 1 C:Open 27095 11HAADDG 118C 128C 128C 128C 128C 128C 128C 128C	R -0.06213 • 0.02486 • 0.02486 • 0.52199 • 0.12413		GROUP 48 GROUP 48 GROUP 48 GROUP 48 GROUP 48
1148 NR 136 27012 118HT7H 345 1 C:Open 27099 11HANDBG 110HT C 130 270 11HANDBG 130 1 C:Open 27099 11BHANDBG 11HANDBG 11HANDBG 150 1 C:Open 27091 11BHANDBG 150 1 C:Open 27061 11GHANDBG 150 1 C:Open 27061 11GHANDGG 150 1 C:Open 27061 11GHANDBG 150 1	* 0.06213 R -0.02941 * 0.02486 * -0.52199		GROUP 48 GROUP 48 GROUP 48 GROUP 48
11HARDN 345 27012 11SMITH 345 1 C:Open 27099 11HARDBO 11GR RVR 128 27126 11GNHO C 138 2 C:Open 27095 11GN RVR 05RICHCTS9.0 24630 05NWHTH 69:01 C:Open 27061 11BONNES 11GN RV 151 27553 14WILSOOT 161 1 C:Open 27061 14WILSOO	* 0.06213 R -0.02941 * 0.02486 *		GROUP_4B GROUP_4B GROUP_4B GROUP_4B
11HARDN 345 27012 11SMTH 345 1 C:Open 27099 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 05ELGHTGS.0 24690 05EMTHS 8:0 1 C:Open 37085 11HZTCHR 138 27340 11IERTCHRS.0 1 C:Open 27085	* 0.06213 R -0.02941		GROUP_48 GROUP_48
11HARDN 345 27012 11SMITH 345 1 C:0pen 27099 11GR RVR 138 27126 11OHIO C 138 2 C:0pen 27095 ACST-HET-YES 0 24690 ANNHYTH 69.0 1 C:0pen 24686	0.06213		GROUP 4B
11HARDN 345 27012 11SMITH 345 1 C:Open 27099		750 0 175.0	dr dilode
	 -0.12031 -0.32916.27006 		GROUP_4B
11SMITH 345 27142 11SMITH 138 1 C:Open 27099	* -0.12031		GROUP_4B
OSRICHCT69.0 24689 OSTREATY69.0 1 C:Open	R -0.02941 1.00000		GROUP 4B
10CULLEY 138 26879 10GRNDVW 138 1 C:Open 26861 10ABBRWN	R -0.08019 0.42491		INITE PROAS GROUP 48
11GR RVR 138 27126 11OHIO C 138 1 C:Open 27095 11GR RVR	0.06360		GROUP_4B
11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV	0.17090		GROUP_4B
11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV	• 0.17105		GROUP_4B
10NEWTVL 138 26886 10NEWTVL69.0 1 C:Open 26855 10NEWTVL	* 0.02268	7	UNITZ_PHC45 GROUP_4B 7
10NEWIVL 138 26886 10NEWIVL69.0 2 C:Open 26855 10NEWIVL	* 0.02268 0.61371		GROUP_4B
18468 8VOLUNTE 500 1 C:Open 18457	0.08803		GROUP_4B
18430 BDAVIDSO 500 1 18469 SVOLUNTE 161 1	0.03986		UNITZ_PHC45 GROUP_4B 7
27564 14NATALS 161 1	0.20505		UNIT2_PHC45 GROUP_3B 7
29571 20STEPHN69.0 1	0.02991		GROUP_3B
69.0 27260 11FALLS 69.0 1	• 0.13908		GROUP_3B
161 27095 11GR RVR 138 1 69.0 27260 11FALLS 69.0 2			UNIT2_PHC45 GROUP_3B 7
27095 11GR RVR 138 2			GROUP_3B
27552 14COLE 5 161 1 C:Open 27028 11GR RV	• -0.33504		GROUP_3B
138 27079 IICLVRPR 138 1 C:Open 27028 IIGR RV	0.11521		UNIT2_PHC45 GROUP_38 7
345 27563 14COLE 7 345 1 C:Open 27028 11GR RV	. 0.54843		GROUP_3B
GR RV 161 27553 14WILSOS 161 1 C:0pen 27561 14WILSO7	0.49387		GROUP_3B
138 27094 11GR STL 138 1 C:Open 27012 119MITH	* -0.03271		UNIT2_PHC45 GROUP_3B 7
345 27012 119MITH 345 1 C:Open 27099 11HARDBG	0.09166		GROUP_3B
345 27142 119MITH 138 1 C.Open 27099 11HARDBG	- 0.09166		GROUP_3B
138 26879 10GRNDVW 138 1 C:Open 27560 14HENDRS 128 22126 110HIO C 138 2 C:Open 27560 110GB BVD	R -0.06270		UNITY PHEAS GROUP 3B
138 27226 110HIO C 138 1 C:Open 27095	* 0.05339		GROUP_3B
161 27095 11GR RVR 138 1 C:Open 27028 11GR RV	0.17931		GROUP_JB
161 27095 11GR RVR 138 2 C:Open 27028 11GR RV	. 0.17946		GROUP_3B
161 29248 20BLIT C 161 1 C:Open 23248 05WAGENH	R -0.02044 -	•	UNITZ_PRC45 GROUP_3B 7
500 18468 8VOLUNTE 500 1 C:Open 18457 8WBNP 1	0.05948 0.75412		GROUP_3B
SVOLUNTE S00 18469 SVOLUNTE 161 1 C: Open 18018 SPHIPP B	* 0.02829 -0.35537		GROUP_3B
SJVILLE 500 18430 BDAVIDSO 500 1 C:Open 18425 BCUMBERL	* 0.02866 0.60927		UNIT2_PHC45 GROUP_3B
10NEWIVL 161 27552 14COLE 5 161 1 C:Open 27028 11GR	-0.32280		GROUP_2B
10NEWTUL 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV	0.09641		GROUP 2B
345 27563 14COLE 7 345 1	0.53310		UNITZ PHC45 GROUP 28 7
161 27553 14WILSOS 161 1 C:Open 27561 14WILSO7	-0.47043		GROUP_2B
345 27012 11SMITH 345 1 C:Open 27099 11HARDBG	* -0.08678		GROUP_28
345 27142 11SMITH 136 1 C:Open 27099 11HARDBG	-0.08678	750.0 231.1	
on but the analytication of the terms of the	200	TEO C 193 7	
		ne ler	Tran
	1 To	nezer	
MINERALLY CONTINUES OF 18 2 SHITH 31 27143 119H1C C 18 2 SHITH 31 27143 119H1TH 318 1 SHITH 31 27143 119H1TH 318 1 SHITH 31 27143 119H1TH 318 1 WHENPYL 118 27079 11CHUPRR 118 1 WHENPYL 118 27079 11GHUPR 20 10 OR NY 118 27025 119HTH 318 1 CCULLEY 118 27025 119HTH 318 1	771 0. 740.79 772 0. 740.79 773 0. 740.79 774 0. 740.79 775 0. 21216 77021 11847144 775 0. 21216 77021 11847144 775 0. 21216 77021 11847144 775 0. 21216 77021 11847144 775 0. 21216 77021 11847144 775 0. 21216 77021 11847144 775 0. 21216 77021 11847144 777 0. 21216 77021 21847144 777 0. 21216 77021 21847144 777 0. 21216 77021 21847144 777 0. 21216 77021 21847144 777 0. 21216 77021 21847144 777 0. 21216 77021 21847144 777 0. 21216 77021 21847144 777 0. 21214444 8801144 777 0. 2121444 8801144 777 0. 2121444 8801144 777 0. 2121444 8801144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 880144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 880144 777 0. 212144 8801144 777 0. 212144 8801144 777 0. 212144 777	0.08678 0.0867	231.5 × 231.5

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OW: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case: W4SP00OW 584; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

8.684	32.004	32.00	97.80	97.641	36.201	995.9	27.091	27 03%	19 704	18.084	28.724	28.714	23.82%	23.831	8.034	17.241	5.30%	57.77	28.634	50.34	25.23%	28.564	19.76	8.344	8.254	24.76%	14.35%	11.674	16.731	9.16%	6.40%		77.914	17.85%	21.16%	12.054	15.064	14.74	28.071	24.241	24.381	26.594	6.824	4.076	0.04	(7.65T	32.074	87.874	22.381	17.574	23.84%	20.224	19.4951
1200.2	32.1	37.2	74.6	74.4	-137.9	-163.3	-47.7	101.6	1,113,7	139.4	-259.2	-257.8	94.8	137.9	102.0	55.5	120.0	-15.8	74.3	11.0	359.8	-73.3	-121.0			-26.1	21.7		-22.8	211.9	-208.5	4.	74.6	101.6	137.3	-36.1	8.46	-257.9	-417.1	9.07	-69.0	-77.5	206.0	-202.2			32.1	37.2	74.6	101.6	-36.6	137.6	.259.4	94.8
1264.6	7.06	39.7	70 2	6.69	-141.4	-164.4	-49.5	5,76	11/11-	143.9	-242.4	-240.7	88.8	143.3	98.7	-110.3	113.8	4.8	43.5	-235.1	186.5	7,1	5.68-			187.2	6.4		6,	123.5	-114.6	38.8	70.2	6.69	143.3	-36.7	88.8	-240.7	-235.1	43.5	-7.1	46.3	123.5	-114.6			39.7	7.66	70.2	6.69	-36.7	143.3	-242.4	8.8
0.06253	0.01267	0.01267	-0.06076	0.10284	0.07385	0.01562	0.01845	0.04184	0.03475	0.01127	-0.12072	-0.12072	0.03812	-0.03144	0.01867	-0.05977	0.01867	-0.02583	0.06917	-0.37975	0.35638	-0.12708	-0.05977	79977.0-		-0.02149	0.02210		97160	0.14204	-0.14204	0.03137	0.08344	0.08313	-0.03166	0.00260	0.02706	-0.07376	-0.39818	0.05775	-0.11360	-0.21690	0.12686	-0.12686			0.00363	0.01270	0.09335	0.09300	0.00007	-0.03305	-0.09290	22000
	51.8	60.1	197.6	132.2	-164.2	-280.0	-71.8	171.8	-199.5	.189.3	- 302.3	-306.0	171.9	176.0	172.0	-216.9	190.8	-58.5	142.2	-557.4	597.8	-168.8	-216.0	-307.3	-306.0	-58,5	51.B	132.2	132.2	334,3	-334.6	67.8	132.2	132.2	176.0	-189.3	171.9	-306.0	-557.4	142.2	597.8	-242.2	334.3	-334.6	132.2		1731.4	60.1	132.2	132.2	171.8	176.0	-307.3	
1810.6		64.0	199.1	124.3	-168.2	-281.7	-74.7	164.8	-206.8	-181.1	232.0	2.085	161.0	188.6	167.6	-205.3	182.7	-13.9	83.1	-313.5	319.8	6.88-	-184.2	-37.5	-240.7	-20.0	30.0	70.2	6.69	184.5	-175.6	49.6	124.3	124.2	188.6	-181.1	161.0	-287.2	-313.5	83.1	919.8	37.5	184.5	-175.6	70.2	1	1831.9		124.3	124.2	164.8	188.6	-287.2	
18457 8WBNP 1 500	55892	26855 10NEWTVL 138	11ARNOLD 161 27023	27028	11LR TAP 138 29387 200KSMIT	27105 11KENTON 138 29566 208PURLK	27113 11LOUDON 138 29202 20AVON	27095 11GR RVR 138 27126 11OHIO C	29386 20JKSMIT 161 29500 20POWELL	27012 11SMITH 345 27142 11SMITH		2/099 LIHAKUBG 138 Z/100 LIHAKUN	11AR RVR 138 27126 110HIO C	26861 10ABBRWN 138 27617 14HENDR4	29432 ZOMAYSVJ 138 29566 20SPURLK	11101 BBAD CRK 500 11102 8JOCASSE	C:Open 27061 IIBONNIE 138 27141 IISHKEWS 138 I	23051 05FULLER 138 23173 05MILLBR	27028 110R RV 161 27553 14WILSOS	27561 14WILSO7 345	C:Open 23031 USFULLER 130 /31/3 USFLEDER 130 1 C:Open 27028 11GR RV 161 27553 14MILSO5 161 1	27028 11GR RV 161 27553 14WILSOS	8BAD CRK 500 11102	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	Babe Cash	n 23051 0SFULLER 138	138		Case	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	161 27553 14WILSOS 161	27061 11BONNIE	11GR RVR	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27095 11GR RVR 138 27126 110HIO C 138 2	27012 11SMITH 345 27142 11SMITH 138	27095 11GR RVR 138 27126 11OHIO C 138	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	14WILSO7 345 27563 14COLE 7 345	27028 11GR RV 161 27553 14WILSOS 161	27028 11GR RV 161 27553 14WILSOS	C:Open 27028 11GR RV 161 27553 14WLLSU5 141 1	27028 11GR RV 161 27553 14WILSO5 161	11GR RV 161 27553 14WILSOS 161	Bade Case	Bade Case	18425 BCUMBERL	C:Open 26855 10NEWIVE 138 26886 10NEWIVES:U A	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR 138	27095 11GR RVR 136	138	27099 11HARDBG 138 27100 11HARDN 138	
18468 BVOLUNTE 500	10NEWIVL 138 26886 10NEWIVL69.0	10NEWIVL 138 26886 10NEWIVL69.0	IDBELVIN 161 29348 20GRNHLJ 161	11GR RV 161 27095 11GR RVR 138	0.77429 27028 11GR RV 161 27095 11GR KVR 138 1	11KENTON 138 29566 205PURLK 138	20DAVIS 69.0 29319 20FAYEIT69.0	27126 110HIO C 138	11DELVIN 161 27045 11WI TAP 161	11CLVRPR 138 27094 11GR STL 138	27034 11LR TAP 161 27045 11WI TAP 161	11SMITH 345 27142 11SMITH 138	-0,32916 27006 11HARDN 345 27012 11SMITH 345 1	SET WOUNDOIL PERSON 138	11FLEMIN 138 27093 11GODDRD 138	SROBBINS 161 18040 SSANTEET 161	11LEITCH 138 27240	-0.47947 27105 IIKENION 138 2/15/ IIMEDONI 138 1 0.77655 24067 05GRAYSB69.0 24077 05FRANKN69.0 1	26855 10NEWIVL 138 27079 11CLVRPR 138	11GR RV 161 27553 14WILSOS 161	-0.77655 24067 05GRAYSB69.0 29198 20ARGIM 69.0 1	10NEWIVE 138 26857 10NEWIVE 161	SNANTAKA 161 11172 5ROBBINS 161	10NEWIVE 161 27552 14COLE 5 161	- 27012 ILSMITH 345 27142 ILSMITH 138 I - 27006 ILHARDN 345 27012 ILSMITH 345 1	05PLYM.G69.0 24091 05N HAVH69.0	-0.51651 27015 11W LEXN 345 27153 11W LEXN 138 1	-0.25368 2/205 LIE VIENES:0 295/1 27028 11GR RV 161 27095	27028 11GR RV 161 27095	05FRANKN69.0 24084	-0.25941 27552 14COLE 5 161 27564 14NAIALD 101 1 0.25941 27558 14SKIIMS 161 27564 14NAIALS 161 1	11BONNIE 138 29227 20BONNIE	0 77495 27028 11GR RV 161 27095 11GR RVR 138 2	11GR RV 161 27095 11GR RVR 138	11GR RVR 138 27126 11OHIO C	0.42491 26851 10CULLEY 138 26879 10GRNDVM 138 1 n cacar 22679 11CLURDR 118 27094 11GR STL 138 1	11GR RVR 138 27126 110HIO C 138	11SMITH 345 27142 11SMITH 138	-0,32916 27006 11HARDN 345 27012 11SMITH 345 1	2/028 118K KV 181 2/555 1775552 26855 10NEWTVL 138 27079 11CLVRPR	27561 14WILSO7 345 27563 14COLB 7	26855 LONEWTVL 138 26857 LONEWTVL	0.35634 26857 10NEWIVE 161 27552 14COLE 5 161 1	27558 14SKILM5 161 27564 14NATAL5	27028 11GR RV 161 27095 11GR	- 27028 11GR RV 161 27095 11GR RVR 138 1	BJVILLE 500 18430	26855 10NEWIVE		27028 11GR RV 161 27095	11GR RVR 138 27126 11OHIO C	27079 11CLVRPR 138	-0,42491 26851 10CULLEY 138 26879 10GRNDVM 138 I	ITSMITH 345 Z/142 TTSMITH
0.08407	0.02044	0.02044		0.18292	0.18277	0.02676	0.02980	0.07074	0.06830	-0.06066				0.08912		•		0.02429			0.10453		- 77650.0-	-0.38194	-0.12072 -			0.10323 -			0.24055	0.02713	14786	0.14773	0.05022	-0.06646	0.04906	-0.08747	-0.08747	0.12476	0.54864	-0,20140	-0.35879	-0.23015	0.08344 -	0.08313 -	0.04253	0.02050	0.02050	0.16528	0.06060	-0.05529	-0.07275	-0.10964
	- 598.9	-191.8	19.2 R	42.B *		2 6 . 6 . 6 . 6 . 6 . 6 . 6 . 6 . 6 . 6		99.4	106.1 R		138.3 R	136.8	141.9	0 0 575		194.5 +	212.3 *	330.9 *	44.5	160.6	474.4	521.1 *	531.7 +	536.0 +	537.5	544.7 *	546.8	559.2	605.7	611.4 *	622.6 •	669.4 •	5	53.9	140.1 *	190.1 R	221.6 *	229.3 *	234.4	474.1 *	506.8	545.5 +	570.6 *	6.00.9	743.1	749.3	-2364.3 *		-191.3 •			148.3 *		182 0 4
750.0			750.0	750.0	750.0	750.0	750.0	750.0	750.0	150.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750,0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0	750.0	0.027	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	750.0	150.0		750.0	750.0	750.0	750.0	750.0	0 635
NIT2_PHC45 GROUP_58 750.0 -1030.1	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP SE	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_58	GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP 5B	GROUP_SB	GROUP_5B	GROUP SB	GROUP_5B	GROUP_SB	GROUP_58	GROUP_5B	GROUP_SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_SB	41040	GROUP 68	GROUP_6B	GROUP 6B	GROUP 6B	GROUP_68	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_GB	GROUP_6B	GROUP_68	GROUP 6B	GROUP_6B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B		
UNIT2 PHC45	PHC45	UNIT2_PHC45	UNITZ_PHC45			UNITS PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC4S	UNITZ_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45		UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC4S	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45 UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	

																																				_														_			_	_
	13.534				26.791		ın	6.06	5.64	1.554	1.431		14.594		_	5.814		8.76%			F.3		90.544				19.267				23.74%		N	7.664				0.524			-		87.7.78					19.44%					26.764	
-258.0	55.5	73.0	-121.9	358.1	-72.4	230.8	21.7			-207.3		48.1	143.3	74.6	74.4	-43.3	64.6	776.3	1196.6	32.1	37.2	237.0	4.47	101.6	137.5	-36.1	-259.2	-257.8	55.5	-408.1	362.4	-73.4	-96.6		21.8	209.5	-205.9			852.7	32.1	37.2	74.6	101.6	-36.5	137.6	-259.4	9.4.8	2.59	-411.6	72.8	357.7	-72.2	-63.9
-240.7	54.1	43.5	-110.3	186.5	1.7.1	123.5	9.4			-114.6		38.8	143.3	70.2	6.69	-36.7	46.3	793.9	1264.6	39.7	7.66	237.6	70.2	97.5	143.3	-36.7	-242.4	-240.7	54.1	-235.1	196.5	1.7-	46.3		4.6	123.5	-114.6			835.1	39.7	39.7	70.2	97.5	-36.7	143.3	-242.4	88.8	540.7	-235.1	43.5	186.5	-7.1	46.3
-0.09290	0,00534	0.06347	-0.02495	0.34761	-0.12298	0.13800	0.01854			-0.13800		0.01308	0.00001	0.02279	0.02270	-0.02058	0.02588	41500.0	0.04180	0.01348	0.01348	-0.01733	0.09616	0.03453	-0.03601	0.00331	-0.08868	0.03247	0.00551	-0,36267	0.35426	-0.12180	-0.23923		0.01843	0.12687	-0.12687			-0.00412	0.01269	0.01269	0.09325	0.03577	0.00107	-0.03310	-0.09343	0.03259	-0.09343	-0.38133	0.06315	0.34651	-0.12268	23755
-306.0	99 9	142.2	-216.9	597.6	-168.8	334.3	51.8	132.2	132.2	-334,6	-306.0	67.8	176.0	132.2	132.2	-189.3	242.2	3132.6	1724.0	51.8	60.1	239.9	132.2	171.8	176.0	-189.3	-307.3	-306.0	96.0	-557.4	597.8	-168.8	-242.2	132.2	132.2	334,3	-334.6	-307.3	-306.0	1731.4	51.8	60.2	132.2	132.2	-189.3	176.0	-307.3	171.9	-306.0	-557.4	142.2	8.765	-168.8	- 242 3
-285.5	1.08	2. E.	-205.3	319.8	6, 89	184.5	30.0	70.2	69.9	-175,6	-240.7	49.6	168.0	124.3	124.2	-181.1	124.1	1214.2	1810.6	64.0	64.0	240.6	124.3	164.8	188.6	-181.1	-287.2	161.0	1.08	-313.5	319.8	1.85-	-37.5	70.2	6.9.9	184.5	-175.6	-242.4	-240.7	1831.9	64.0	64.0	124.3	124.2	181.	188.6	-287.2	161.0	-285.5	80.1	83.1	319.8	-58.9	3 22
27099 11HARDBG 138 27100 11HARDN 138	27061 11BONNIE 138 27141 11SHREWS 138	C.Open 27561 14MILSO7 345 27563 14COLK 7 345 1	3BAD CRK 500 11102 8JOCASSE	RV 161 27553 14WILSOS 161	11GR RV 161 27553 14WILSOS	C:Open 27028 110K RV 161 27553 14WILSOS 161 1	n 27061 11BONNIE 138 27141 11SHREWS 138	Base Case		C:Open 27028 118R RV 161 27553 14WILSOS 161 1	Dated Case	C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	11GR RV 161 27095	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	27012 119MITH 345 27142 119MITH	C:Open 27561 14MILSO7 345 27562 14REID 7 345 1 C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1	t nos transfer of a define erest resolves	18457 BWBNP 1 500 18468 BVOLUNTE	26855 10NEWIVE 138 26886 10NEWIVE	26855 10NEWTVL 138 26886	27079 11CLVRPR 138 27144 11TIPTOP.	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	11GR RVR 138 27126 11OHIO C	27560 14HENDRS 161 27617 14HENDR4	27012 11SMITH 345 27142 11SMITH	27099 11HARDEG 138 27100 11HARDN	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	27061 11BONNIE 138 27141 11SHREWS	27561 14WILSO7 345 27563	11GR RV 161 27553 14WILSOS	C:Open 27028 1108 RV 161 27553 14W1505 161 1	11GR RV 161 27553 14WILSOS	Base Gase	act pridantite terms are damped to	C:Open 27061 11BONNIE 138 27141 11BHREWS 138 1	27028 11GR RV .161 27553 14WILSOS 161		Base Case	C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 1	10NEWTVL 138	26855 10NEWIVL 138	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	10ABBBWN 138 27617 14BENDR4	27099 11HARDBG 138 27100 11HARDN	27095 11GR RVR 138 27126 11OHIO C	27099 11HARDBG 138 27100 11HARDN	27061 11BONNIE	14COLE / 14WILSOS	27028 11GR RV 161 27553 14WILBOS 161	27028 11GR RV 161 27553 14WILSOS	1 151 SCOTTURE CORP. 154 WE WAS CORP.
-0.32916 27006 11HARDN 345 27012 118MITH 345	-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0	2 -0.42013 27028 11GR RV 161 27553 14WILSOS 161 1	- 11172 SROBBINS 161 18040 SSANTEET 161	-0.56709 27561 14WILSO7 345 27563 14COLE 7 345	0.22051 26855 10NEWTVL 138 26857 10NEWTV	4 0.35634 2685/ IONEMIVL IBI 2/552 14COLB 5 161 1 5 -0.25941 27552 14COLB 5 161 27564 14NATALS 161 1	-0.25368 27205 11R VIEW69.0 29571 20STEPHN69.0	- 27028 11GR RV 161 27095 11GR RVR	- 27028 11GR RV 161 27095 11GR RVR 138	5 0.25941 27558 145KILM5 161 27564 14NATAL5 161 1	27006 11HARDN 345 27012 119MITH 345	0.32160 27061 11BONNIE 138 29227	0.13223 26851 10CULLEY 138 26879 10GRNDVW 138	0.77495 27028 11GR RV 161 27095 11GR RVR	0.77429 27028 1	0.59587 27079 11CLVRPR 138 27094 11GR STL 138	5 0.64388 27561 14WILSO7 345 27563 14COLE 7 345 1 9 0.41730 26857 10NEWTVL 161 27552 14COLE 5 161 1	t tot downtrown obtain and downtrown absent respect of	0.75412 18464 RHUL NO 500 18466 6VOLUNTE	0,61371 26855 10NEWIVL 138 26886 10NEWIVL69.0	0.61371 26855 10NEWTVL 138 26886	-0.07826 27019 11BLUE L 161 29248 20BLIT C 161	0.77495 27028 11GR RV 161 27095 11GR RVR	0.75817 27095 11GR RVR 138 27126	-0.42491 26851 10CULLEY 138 26879 10GRNDVW	0.59587 27079 11CLVRPR 138 27094 11GR 9TL	-0.32916 27012 11SMITH 345 27142 11SMITH	5 0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2	-0.31945 27109 11LEITCH 138 27240 11LEITCH6	-0.42013 27028 11GR RV 161 27553 14WILSO	-0.56709 27561 14WILSO7 345 27563 14COLE 7	1 -0.16831 26855 10NEWIVE 138 27079 11CLVRPR 138 1	0.35634 26857 10NEWTVL 161 27552 14COLE 5	- 27028 11GR RV 161 27095	27028 11GR RV 161 27095	-0.25368 27205 11E VIEW69.0 29571	0.25941 27558 149KILM5 161	- 27012 11SMITH 345 27142 11SMITH	8 - 27006 11HARDN 345 27012 11SMITH 345 1	2 0 60927 18422 8JVILLE 508 18430 8DAVIDSO 500 1	0.61371 26855 10NEMIVL 138 26886	0.61371 26855 10NEWTVL 138 26886 10NEWTVL69.0	0.77495 27028 11GR RV 161 27095 11GR RVR 138	0,77429 27028 11GR RV 161 27095 11GR RVR 138	0,75817 27095 11GR RVR 138 27126 110HIO C 138	1 0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1	-0.32916 27012 11SMITH 345 27142 11SMITH 138	0.74073 27095 11GR RVR 138 27126 11OHIO C 138	-0.32916 27006 11HARDN 345 27012 11SMITH 345	-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0	-0.42013 27028 1	-0.16831 26855 IONEMIVD 138 27079 ILLDVKFR -0.56709 27561 14WILSO7 345 27563 14COLE 7	0.22051 26855 10NEWIVL 138 26857	
-0.10964	0.02338	-0.52632	-0.02495	0.56327	-0.20683	0.23665	0.03286	0.09335	0.09300	-0.23665	-0.09290	0.02550	0.04491	0.04038	0.04034	-0.02560	0.62925		0.05323	0.02175	0.02175	-0.02226	0.17039	0.05839	-0.07723	-0.04954	-0.10573	0.05705	0.02287	-0.51150	0.55992	0.11881	-0.36846	0.09616	0.09580	0.03222	-0.22095	-0.08868	-0.08868	62560	0.02048	0.02048	0.16524	0.16510	0.06048	-0.05461	-0.11046	0.05909	-0.11046	0.02334	-0.52691	0.12733	-0.20677	
187.0 *	250.9	463.4	466.1 •	493.6 •	531.2	632.9 *	663.4	2. 599	669,8	671.9	703.2	712.2	177.5	193.9	197.2 *	320.4 •	704.5		-1627.0	-562.9 *	-180.2 *.	31.0 R	46.0	120.5	163.6 R	165.6 *	189.7	190.6	256.5 *	476.8 *	496.5	497.9	555.7 4	6.44.9	650.2	* 9.929	719.7	731.7	736.7	* 9 36 6 *	- 597.8	-191.4 *	47.4	48.2	116.3 *	150.2 *	191.5	184.0	185,6	251.4 •	462.9	464.6 *	531.3	
GROUP_7B 750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0				750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	6		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750 0	750.0	750.0	
GROUP 7B	GROUP_7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP AB	GROUP 8B	GROUP_8B	GROUP_8B	GROUP_8B		GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP_NB	200	agont and	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SH	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	1
	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	DICTOR CHINA	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2_PHC45	artic pitters	INIT'S PHEAS	UNITZ PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W4SP00OW: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500 LF Case: W4SP00OW say; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

70	5.394	9 00 0	2 2 2	1884	200	1.024		-	
nibase	21.7		-207 0			48.0			
4,854	4.6		7	2.111		9 81	,		
100	0.01851			07/67/0-					
	51.8	132.2		. 194.6	107.3	0.806	9.79		
100	30.06				-242.4	•	, ,		
tron Pradi	9	F	9	-17	-24	-24	4		
	5 138 1			5 161 1		,	A 138 1		
	141 11SHREW			553 14WILBO			152 11W LEB	•	
doublingen	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1			C:Open 27028 11GR RV 161 27553 14WILBOS 161 1			C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1		
	27061 11BON		e	27028 11GR	9.0	•	27061 11BON		
	C:Open	Base Case	Base Case	C:Open	Base Case	Base Case	C:Open		
	HN69.0 1	VR 138 2	VR 138 1	LS 161 1	H 138 1	H 345 1	IE69.0 1		
Constants	571 20STEP	1095 11GR R	7095 11GR R	1564 14NATA	142 11SMIT	7012 11SMIT	1227 20BONN		
Titul cand	-0 25168 27205 11E VIEW69.0 29571 20STEPHN69.0 1	11GR RV 161 27095 11GR RVR 138 2	11GR RV 161 27095 11GR RVR 138 1	145KILMS 161 27564 14NATAL5 161 1	11SMITH 345 27142 11SMITH 138 1	11HARDN 345 27012 11SMITH 345 1	11BONNIE 138 29227 20BONNIE69.0 1		
48	27205 11E	27028 11GR	27028 11GR		27012 11SM				
į	-0.25368			0.25941 27558		1	0.32160 27061		
	8		- 06260'0	-0.23602	-0.09343	-0.09343	0.02519		
Set.		665.0	6.079	673.7 *	694.5	699.2	720.9		
Transfer.	750 0	750.0	750.0	750.0	750.0	750.0	750.0		
	.01	1 20		m	æ	p	œ.		
	a dilogo	GROUP S	GROUP SB	GROUP S.	GROUPS	GROUPS	GROUP_S		
201		HC45	HC45	HC45	HC45	HC45	HC45		
		UNITZ PHC45	UNITZ_PHC45	UNITZ P	UNITZ	UNITZ PHC45	UNIT2 PHC45		

Csse; 2004 SUMMER PEAK ECAR BASE CASE W4SP61_S: 1500 MMV SPLIT BETWEEN WILSON 345 PARADISE 161 LF Csse; W4SP61_S.sav; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

670

	попе	Exclude File: none
	Subsystem File: C:\BV-USERS\NOBODY\PHC.eub	Subsystem File: (
	Contingency File: C:\BV-USERS\NOBODY\PHC.con	Contingency File: (
	Monitor File: C:\BV-USERS\NOBODY\PHC:mon	Monitor File: C
PARADISE 161	M45P61_S: 1500 MW SPLIT BETWEEN WILSON 345 & PARADISE 161	Title2:
	2004 SUMMER PEAK BCAR BASE CASE	Titlei:
	MUST TITLE: *** MUST 3.20 *** WED, JAN 10 2001 21:34 ***	MUST Title:
W45P61_S+UNIT2_PHC45.	FCITC MULTIPLE TRANSFER REPORT: W45P61_S+UNIT2_PHC45.	FCITC MUL

MAL_		Exclude File: none	ej e										
		rting the first 200	violations per transfer						10.		200020000000000000000000000000000000000		
		From	10.00	PETEC		Clastel	Consistency	Mood Presbile	T. Canal C.		73.	33	58.894
	Column C		Α,			10NEWIVE 138 26886 10NEWIVES.0	C.Open 26855 IONEMIVE 138 26886 IONEMIVES, U.	4.68	6.08	0.01319	55.4		97.014
	1,		т, г	7		10NEWIVE 138 26888 10NEWIVESTO	161	-176.9	-176.0	0.03601	-128.7	-128.3	31.414
No. 1965 1	March Marc				•	-	26851 10CULLEY 138	176.6	175.5	-0.03496	162.3	161.2	14.861
Column C	No. 1969 1964 1		. **	N		11GR RV , 161	2702B 11GR RV 161 Z7095	1.7.	116.7	0.09698		2. 2. 5	76.34
Column C	Color					11GR RV 161	27028 11GR RV 161 27095 11GR RVR	0.121-	-148.4	-0.12169	-18.8	-52.3	32.014
	Color Colo		Ξ,		Ċ	10NEWTVL 138	26851 10CULLEY 138 26879 10GRNDVM	72.1	78.9	0.00540	52.9	54.6	13.094
Column C	March 1910		æ		0.02284	11LEITCH 138	CONTRACT TELLS SET WINDOWS TOUR	139.6	157.8	0,03484	B2.6	93.3	16.47
Column C	March Marc		m 1		0.05892	11GR KVK 138 2/126 11OHIO C 138 2	27095 11GR RVR 138	136.4	157.8	0.03175	75.2	87.1	10.801
March Marc	March 1970		m 4		0.05756	14COLE 5 161 27564 14NATALS 161 1	27028 11GR RV 161 27553 14WILSOS	169.0	263.8	0.13001	112.9	167.4	28.394
March Marc	March 1960 1962		n 60		-0.02284	11LEITCH 138 27141	27061 11BONNIE 138 27141	-72.2	-81.8	-0.00540	-53.1	.55.3	9.214
March Marc	Mail				0.08203	110HIO C 138 27141 119HREWS	27561 14HILSO7 345 27563 14COLE 7	130.2	164.8	0.05997	117.9	143.1	16.34
March 1916 611.5 611.01 611.0	MALO, 1910,	-			-0.22626	14SKILMS 161	27028 11GR RV 161 27553 14WILSOS	-160.3	-264.3	-0.13001	-104.1	-163.9	45.514
March 1900 6000	Mail				-0.37049	10NEWTVL 161	27028 11GR RV 161 27553	-52.0	-226.7	-0.23828	1.52	270	22.836
No.	Mar. 190				0.56127	14WILSO7 345 27563 14COLE 7	27028 11GR RV 161 27553	319.4	6.765	9.35088	. 216.	2.104	23,334
Marth 1965 1921	March 196.		1 20		-0.51841	11GR RV 161	27561 14WILSO7 345 27563	-299.0	-557.7	860/6.0-	5.00	23.4	14.136
March 190. 181. 1.0.10. 1.	Mail				0.03109	11GR RVR69.0	27028 11GR RV 161 27042	39.0	54.6	0.000.0	105.1	122.8	9.67
March 190. 614.1 0.1134 0.1235 2.023	ALL				0.15310	27551 14REID 5 161 27559	27561 14WILSO7 345 27563	175.8	0.697	6.020.0	8 95	69.7	13.984
MAL	4.4. 7 75.0 64.3 - 64.3 - 6.1356 - 6.0359 77.5 118.0 11 7049 13.0 13.0 14.0 14.2 1 75.0 1		, =		0.12194		27028 11GR RV 161 27553	2.1.5	142.7	0.03348		16.3	7.294
Mail	ALL TO THE TOTAL NAME OF THE TOTAL STATES CONTINUED TO THE TOTAL S		. ~		0.03208		27061 11BONNIE 13B	6,67		10473	9	-138.2	\$ 00.5
Add	MAL_				-0.13956	11EARL N 161	27561 14WILBO7 345	1,48-	9.701	0.01171	36.1	44.8	0.32\$
March Marc	Main				0.02385	11BONNIE 138	27061 11BONNIE 138	7 55-	-179.0	-0.08703	-43.1	-107.8	\$05.0
Company 18 The Company	0.0000_13 0.0000_13 0.00177 0.01177				-0.14159	11GR STL 138	C:Open 27561 14M1LSO/ 345 2/563 INCOLE / 319 L						
Company Comp					10000			89.4	40.7	0.01349	55.4		59.774
			•		0.021//		TONEWIVE 138	4.68	50.9	0.01349	55.4		07.724
GROOP_18 755.0 11.7 0.0715 0.0125 0.	Compon_18 750 11.7 Compon_18 750 11.7 Compon_18 750 75				0.021//		7MCCRED 345	-357.3	-334.7	-0.05655	-209.4	179 7	16.414
Compage 19 1900 1911 1912 1	Component The control of the con					10NEWTVL 138 26879	27560 14HENDRS 161 27617	-176.9	-176.0	0.03757	128.7	-128.3	32.00
Company Comp	Comparison The Comp			78.7	•	10CULLEY 138 26879	26851 10CULLEY 138 26875		175.5	-0.03654	162.3	7.191	17.475
Company Comp	156. 156.			176.2		MOREAU 161 31240	30677 GUTHRIE 161 30805		B 1	0.04023			68.27%
Colon Colo					0.15903	11GR RV 161 27095	27028 11GR RV 161 27095	17.1	116.7	0.08974		65.7	101.89
The color The	0000P_18 750.0 244.4 0.00778 0.008700 0.0114 0.0104 0.0104 0.0104 0.0104 0.008700 0.0114 0.010				0.15890	11GR RV 161	27028 11GR RV 161 27095 11GR RVR	0.77	116.7	12261	-18.8	-52.6	31.894
Part	Company Table Ta				0.09963	10NEWIVE 138 26857 10NEWIVE	26851 10CULLEY 138 26879 10GRNDVM	8 074	-175.7	90880'0-	-114.9	-139.9	23,30%
Group_18 755.0 313.0 0.056284 0.77051_27095 1188 WR N. 12 271.25 110010 118 115.4 157.5 110010 118 115.4 157.5 110010 118 115.4 115.4 115.4 115.5 110.5 115.4 115.4 115.5 110.5 115.4 115.5 115.4 115.4 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5 115.4 115.5	GROUP_18 790.0 313.0 0.05134 0.15134 0.15134 13125 11015 0.1813 0.15134 0.				-0.08778	CALIF 161	30154 BLAND 345	72.1	78.9	0.00510	52.9	54.5	12.244
Coron 186 196	The color The				. 0.02194	11LEITCH 138	27051 LIBORNIS 138 27111 ILORENO	139.6	157.8	0.03370	82.6	93.3	15.551
Characteristic Char	GROUP_18 750.0 345.4 0.03586 0.740579 LIME KE LIANTACE LEG C.C. C.C. C.C. C.C. C.C. C.C. C.C. C				. 0.05698	11GR RVR 138	27095 11GR RVR 138	136.4	157.8	0.03070	75.2	1.78	12.891
1750.0 172.4 172.5 172	Common Table Tab				0.05566		11GR RV 161	169.0	263.8	0.13151	112.9	167.1	29.424
GROUP_LB 750.0 434.5 0.07533 0.02534 712.0 ILIBRENS 136 C.Open 27561 14HILGO7 346 74563 410.016 735 1130.2 14.6 130.2	Group_18 750.0 414.5 0.07953 1.0248 7.141 1.158RR 138 1 C.Open 2764 1.141RG7 345 2765 1.141.8 0.05783 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 1.141.8 0.07954 0.0795				. 0.22988		11GR RV 161	39.0	54.6	0.00949	20.2	24.5	15 705
GROUP_LB 760.0 457.4 -0.02186 Copen 27021 L180NHIE 118 150.1 -71.2 -81.6 -0.00210 -71.2 -81.6 -7.00218 -	GROUP_LB 750.0 451.4 0.12894 27954 1487KBN 136 1 1.00981 1180KBN 136 1.0099.				0.03/39	110HIO C 138	14WILSO7 345 27563	130.2	164.8	0.05783	117.9	143.0	8.38
GROUP_18 750.0 452.1 -0.12398 0.15846_72558_145KTU5_161_1 1.25553_14KTU505_161_1 -1.5253_14KTU505_161_1 -1.520_1 -2.26	GROUP_LB 750.0 457.4 -0.12968 0.158646 27558 1460405 16.1 1.000 1756.1 1756.2 1460405 16.1 1.000				-0.02194		11BONNIE 138 27141	-72.2	-81.8	-0.00510	1.04.1	-163,6	25.881
GROUP_LB 750.0 455.7 0.03562 2.05632 2.05632 2.05622	GROUP_LB 750.0 465.1 -0.37867 0.38636 26697 JANUARY LD 12752 14000L				-0.22988	14SKILM5 161 27564	27028 11GR RV 161 27553	1,001		-0.24056	25.1	-86.8	47.22*
GROUP_18 750.0 433.6 • 0.58717 0.08693 0.22074 31408 OVERTON 14.1 1.00pm 56125 THOMM. 13.6 176.0 14.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	GROUP_18 750.0 497.1 6.08693 0.22076/31408 0.0870870 14.1				0.37567	10NEWTVL 161 27552	27028 11GR RV 161 27553 14WILSOS	-52.0		0.07920	183.2	222.0	7.86%
GROUP_B 750.0 493.6 - 0.55442 - 0.54010 77048 1108 N 14.75754 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.7525 14.0502 14.7525 14.7525 14.0502 14.7525 14.0502 14.7525 14.0502 14.7525 14.7	GROUP_18 750.0 493.6 -0.52412 -0.4207/27024 118 M. Cropen 73761 MILLOS 1541 1314 597.9 0.04555 0.04505 0.04505 0.04505 0.04505 0.04505 0.04505 0.04505 0.04505 0.04505 0.04505 0.07504 0.07241 0.07251 0.04405 0.07251 0.072				. 0.08693	OVERTON 345 31409	345 96354 STHMHILD	0.000	•	-0.37915	-216.3	-403.5	24 . 10%
Group_18 750.0 697.2 • 0.55608 • 0.57273 1221 1221 1222 1481 1481 1222 1481 1481 1222 1481 1222 1481 1222 1481 1222 1481 1222 1481 1222 1481 1222 1481 1481 1222 1481 1481 1222 1481 1481 1222 1481 1481 1222 1481	GROUP_18 750.0 540.2 * 0.56008 -0.56714 27561 JACONE 745 1 1222 MORRINY 61.0 1 1222 MORRINY 62.0 1 1222 MO				0.52412	11GR RV 161 27553		319.4		0.34505	196.7	368.2	23.681
GROUP_LB 750.0 504.2 * 0.07834 0.0185131218 MORBERN 16.1 31222 MORBERN 16.1 3122 MORBERN 16.1 312 MORBERN 1	GROUP_18 750.0 \$10.42 0.07870 0.71329 11212 HORBERIV \$1.0 1 C.Open 11221 HORBERIV \$1.0 1 C.Open 1221 HORBERIV \$1.0 1 C.Open 1222 HORB				● 0.56008	14WILSO7 345 27563	2/028 110K KV 151 2/333	35.0		0.04635	20.6	44.0	25.87
GROUP_18 756.0 510.0 • 0.07874 0.70816.1 10.0 10.0 10.0 10.0 10.0 10.0 10.0	GROUP_18 756.0 510.0 0.07834 0.70816-71214 MPRING 18.1 12.2 19.632 SHARIES 18.1 12.0 11.0 11.0 11.0 11.0 11.0 11.0 11					MOBERLY 161 31222 MOBERLY	MOBERLY 161 31222	34.8		0.04542	20.2	5.5	25.148
GROUP_LB 756.0 551.7	GROUP_18 750.0 \$61.7 * 0.00341 * 0.00342 0.00342					MOBERALI 161 JIZZZ MOBERALI MEDITOR 178 96292 SMARIES	RIVMIN 1 138 31933	-41.2	•	-0.08535	-2.3	2.06-	A 204
GROUP_18 756.0 866.7 0.1472 0.1232 0.1343 0.1543 0.1343 0.1	GROUP_18 756.0 586.4 0.1016.2 1.00				-0.09847	-0.65595 SINCE AND	Bate Case	5.09				8.83	13 974
MAGNOR_LB 750.0 580.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	GROUP_LB 76.0 597.7 0.14390 0.055432 77551 14RRID 5 161 27559 140MVISS 161 1 C:Open 27561 14MILGO7 345 27563 14COLE 7 345 1 .181.6 0.1137.8				0.04023	-0 16837 26855 10NEWIVE 138 27079	C:Open 27028 11GR RV 161 27553 14WILSO5 161 1	71.2		0.05807	1.801	122.2	165.8
GROOP_18 750.0 270.7 0.01540 0.0550 27025 11ENRE N 164 27042 11EQ TAP 1164 1 0.0000_18 750.0 0.0000_18 750.0 0.0000_18 750.0 0.0000_18 750.0 0.0000_18 750.0 0.0000_18 750.0 0.0000_18 750.0 0.0000_18 750.0 0.00000_18 750.0 0.00000_18 750.0 0.00000_18 750.0 0.000000_18 750.0 0.00000_18 750.0 0.00000_18 750.0 0.000000_18 750.0 0.00000_18 750.0 0.00000_18 750.0 0.000000_18 750.0 0.00000_18 750.0 0.00000_18 750.0 0.000000_18 750.0 0.00000_18 750.0 0.000000_18 750.0 0.000000_18 750.0 0.000000_18 750.0 0.000000_18 750.0 0.0000000000000000000000000000000	GROOP_18 75:0 23:7: 0.15330 27:0525 11ENER N 161 27041 11RQ TAP 161 1 C.Open 77561 14MILGO7 345 27562 37:051 37:05		-		4 0 14930	0 3543 27551 14RRID 5 161 27559	C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1	175.8		0.02702	9.99-	-140.8	11.034
GROUP_18 750.0 684.3 + 0.03079 -0.25375, 27205 118 VIEWGE-0.1 C:Open 27061 1180MNIR 138 77141 1184R6MS 138 1 41.3 175.7 C-0.03806 - 30233 GALIF 161 31840 GORG - 2034 GORG - 20348 GORG - 2	GROUP_18 750.0 684.3 + 0.03079 -0.18575_27265_IIR_VIENES 0. 2257_2_205_FRENKS 0. 1. C.Open 27061_IIR_ONNIR_ISS_27141_IIRHKENS_128_1 -114.9 -175.7 -114.9 -175.7 -10233 OALTH ISS_27265_IIR_VIENES 0. 1. C.Open 27067_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27266_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27265_IIR_DNNIR_ISS_27266_IIR_DNNIR_ISS_27266_IIR_DNNIR_ISS_27266_IIR_DNNIR_ISS_27266_IIR_DNNIR_ISS_27266_IIR_DNNIR_ISS				.0.15403	-0.09930 27025 11EARL N 161 27042	C: Open 27561 14HILSO7 345 27563 14COLE 7 345 1	1.08-	i	0.01741	4.3	16.2	4.91
GROUP_1B 750.0 691.1 -0.08806 - 30233 GALIF 16131409 OVERTON 161 1 Same case GROUP_1B 750.0 740.7 • 0.04396 0.2916.0 0.00120 36.1 45.2 GROUP_1B 750.0 740.7 • 0.04396 0.2916.0 0.00120 36.1 45.2 GROUP_1B 750.0 740.7 • 0.04396 0.2916.0 0.00120 36.1 45.2 GROUP_1B 750.0 740.7 • 0.04396 0.00120 36.1 45.2	GROUP_1B 750.0 691.1 -0.08806 - 30233 CALIF 161 31409 OVERTON 161.1 State Last GROUP_1B 750.0 740.7 * 0.04396 0.29106 30028 APCH FLT 161 30027 APCH FLT69.0 1 C:Open 30671 IBONNIE 138 27152 11M LEBA 138 1 41.3 59.0 0.01220 GROUP_1B 750.0 745.4 * 0.02376 0.32160 27061 IIBONNIE 138 29227 2080NNIE69.0 1 C:Open 27061 IIBONNIE 138 27152 11M LEBA 138 1				• 0.03079	-0.25375, 27205 11B VIEW69.0 29571	C:Open 27061 11BONNIE 138 27141 119HKEWS 138 1	-114.9	7				2.994
GROUP_18 750.0 740.7 0.04356 0.29106 50026 APT 12 10304 APGH FALSE 1.1 0.0001	GROUP_18 750.0 740.7 * 0.04396 0.22106 30028 APCH FGT 18 30027 APCH FLIRE. 1 C.Open 27061 IBBONNIE 138 27152 11W LEBA 138 1 41.3 59.0 0.01220 GROUP_1B 750.0 745.4 * 0.02776 0.32160 27061 IBBONNIE 198 29227 2080WHIE69.0 1 C.Open 27061 IBBONNIE 138 27152 11W LEBA 138 1 41.3 59.0 0.01220				•	. 30233	LABS. HOST OFFHREE 161 31239 MOREAU	6.05		0.03225	33.1	67.0	0.44
TO THE PROPERTY OF THE PROPERT	GROUP_IB 750.0 745.4 * 0.02376 0.32160 27061 ILBONNIE 138 2922/ 2080NNIESS					0.29106 30026 APCH FLT 161	C.Onen 27061 11BONNIE 138 27152 11W LEBA 138 1	41.3		0.01220	36.1	45.2	0 . 20 ¢

Case; ZONG SUMMER PER ECAR BASE GASE LE CASE; SI, 1500 MAY SPLIT BETWEEN WILSON 345 PARADISE 161 LE CASE; WASPEL_S, SAW, MON; PHC, mon; SUBSYST; PHC, sub; CONT; PHC, con; EXCL. PHC, EXC	
---	--

2 159.394						12	10,675	18					-		1 1.384						3 14.554			7 24.331			22.77	36	~		6.774			0.154	161 601		-	17,364	12	75.	7 75.154			1 15.744				.9 50.93¢	24	.3 23.754		
25.2	120 2	161.2	65.8	65.7	-54.2	E. E.	4.78	1.42.1		Ε.		-161.9	-394.8	119.6	-137.4	,	161.2	6.59	65.7	-51.4	9.4.6	87.1	25.7	165.7	55.5	-162.1	371.9	-84.0	-400.5	122.4	. 69		16.4		ř	249.7		155.2		65.8	65.7	134.6	93.3	87.1	143.5	169,3	164.9	23.7	63	-400.3	70.1	2
4.25	4.00	162.3	43.5	43.3	-18.8	82.6	75.2	112.9	2.00	196.7	25.1	-104.1	-216,3	106.1	34.8	;	162.3	43,5	43.3	-18.8	52.9 82.6	75.2	14.8	112.9	-53.1	-104.1	196.7	25.1	-216.3	106.1	34.8		4.3	20.2		279.7	55.4	168.0	162.3	43.5	43,3	-18.8	82.6	75.2	117.9	112.9	-104.1	25.1	196.7	-216.3	106.1	0.55
0.01336	0.01336	-0.03895	0.07982	0.07952	-0.10943	0.02985	0.02720	0.05137	0.1051	19695	-0.21092	-0.10591	-0.32702	0.02220	0.04290		-0.02740	0.10814	0.10773	-0.10933	0.00534	0.02958	0.02565	0.11819	-0.00534	-0.11819	0.34791	-0.03636	-0.36142	0.02762	0.05884		0.01717	0.00084		0.01413	0.01413	0.02537	0.03838	0.09593	0.09557	-0.12770	0.03732	0.03401	-0.00582	0.13521	-0.13521	0.25470	0.35850	-0.37090	0.03140	40,500
40.7	6.00	175.5	116.7	116.7	-148.4	157.8	157.8	164.8	263.8	597.9	-226.7	-264,3	-557.7	265.0	-181.6	į	175.5	116.7	116.7	-148.4	16.9	157.8	143.3	263.8	164.8	-264.3	897.9	-114.2	-557.7	265.0	142.7	116.7	40.6	54.6	;	40.7	6.05	189.7	175.5	116.7	116.7	-148.4	157.8	157.8	-81.8	263.8	-264.3	-226.7	597.9	-557.7	265.0	142.7
89.4	9.60	176.9	17.11	77.0	-121.0	139.6	136.4	130.2	169.0	13 9.0	-52.0	-160.3	-299,0	175.8	-86.1		176.6	77.1	0.77	-121.0	72.1	136.4	120.1	169.0	130.2	-160.3	319.4	1.96.1	-299.0	175.8	71.2	£3.3	19.5	39.0		386.1	89.4	202.9	-176.9	77.1	0.77	-121.0	139.6	136.4	-72.2	169.0	-160.3	-52.0	319.4	-299.0	175.8	
26855 10NEWIVE 138 26886	26855 10NEWIVL 138 26886 10NEWIVL69.0	C:Open 27560 144ENDRS 161 27617 144ENDR4 138 1	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	26851 10CULLEY 138 26879	27095 11GR RVR 138 27126	27095 11GR RVR 138 27126	27561 14WILSO7 345 27563	27028 11GR RV 161 27553 14WILSOS	C:Open 27028 11GR RV 161 27042 11RQ TAP 151 1	27028 11GR RV 161 27553 14WILSO5	27028 11GR RV 161 27553 14WILSOS	27561 14WILSO7 345 27563 14COLE 7	27561 14WILSO7 345 27563	C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1		C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	26851 10CULLEY 138 26879 10GRNDVW	27061 11BONNIE 138 27141		26013 08GRNTWN 138 26110	27028 11GR RV 161 27553 14WILSOS	C.Open 27561 14MILSO7 345 27563 14CoLE 7 345 1	27028 11GR RV 161 27553 14WILSOS	27028 11GR RV 161 27553 14WILSOS	C:Open 27002 11ALCALD 345 27004 11BRWN N 345 1	14MILSO7 345 27563 14COLE 7	27561 14WILSO7 345 27563 14COLE 7 345	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	ures Cress Bres Cress	061 11BONNIE 138 27141 11SHREWS 138	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1 Base Case		C:Open 26855 10NEWTVL 138 26886 10NEWTVL69.0 1	26855 10NEWTVL 138 26886 10NEWTVL69.0	22617 05NPROCT 765 23190 05NPROCT 138	27560 14HENDRS 161	138	27028 11GR RV 161 27095	26851 10CULLEY 138 26879	C:Open 27061 1180NNIE 138 27141 115HREWS 138 1 C:Onen 27094 110R RVR 138 27126 110HIO C 138 2	27095 11GR RVR 138 27126 11OHIO C	27061 11BONNIE 138 27141 11SHREWS 138	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	11GR RV 161 27553 14WILSOS	27028 11GR RV 161 27553 14WILSOS	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1	14WLL907 345 27563 14COLE 7	27561 14WILSO7 345 27563 14COLE 7 345	
10NEWIVL 138 26886 10NEWIVL69.0	10NEWTVL 138 26886	0.40677 26855 10NEWIVE 138 26879 10GRNDVW 138 1	11GR RV 161 27095 11GR RVR 138	0.77439 27028 11GR RV 161 27095 11GR RVR 138	-0.62960 26855 10NEWTVL 138 26857 10NEWTVL 161 1	11GR RVR 138 27126	11GR RVR 138 27126	110HIO C 138 27141	27552 14COLE 5 161 27564	0.21911 27216 11GR RVR69.0 27271 11RQ TAP69.0 1	26857 10NEWTUL 161 27552	0.25946 27558 149KILMS 161 27564	-0.42017 27028 11GR RV 161 27553	27551 14REID 5 161	-0.09930 27025 11EARL N 161 27042 11RQ TAP 161 1		0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	163 27095	11GR RV 161 27095 11GR RVR 138	10NEWTVL 138	27109 11LEITCH 138 27240	0.75819 27095 11GR RVR 138 27126 11OHIO C 138 1 n 74075 27095 11GB BVR 136 27126 11OHIO C 138 2	23464 05HUNT J 138 26018 08HNTNGT	27552 14COLE 5 161 27564 14NATALS	0.06288 27126 110HIO C	0.31949 2/109 ILLEITCH 138 2/141 ILSHKEMS 0.25946 27558 14SKILMS 161 27564 14NATALS	27561 14WILSO7 345 27563	27195 11DIXDAM69.0	-0.45636 2685/ IONEMIVE FOR 2/332 14CODE 3 181 1	27551 14REID 5 161 27559 14DAVISS	-0.16837 26855 10NEWTVL 138	- 27028 11GR RV 161 27095 11GR RVR 138 2 - 27038 11GR RV 138 1	-0.25375 27205 11E VIEW69.0				0.41330 18012 SFARMALS 101 18031 0.41372 26855 10NBWTVL 138 26886	05SPORN 345 22987 05SPORNA	IONEWTVL 138 26879 IOGRNDVW	0,16225 26851 10CULLEY 138 26879 10GRNDVW 138 1	11GR RV 161 27095 11GR RVR	-0,62960 26855 10NEWIVL 138 26857	-0.31949 27109	0.75819 27095 IIGK KVK 136 27126 0.74075 27095 IIGR RVR 138 27126	0.31949 27109 11LEITCH 138 27141 11SHREWS	0.06288 27126 110HIO C 138 27141	-0.25946 27552 14COLE S 161 27564 14NATALS 161 1 0.25946 27558 14SKILMS 161 27564 14NATALS 161 1	0.35636 26857 10NEHTVE 161 27552	0.21911 27216 11GR RVR69.0 27271	-0,56714 27561 14MILSO7 345 27563 14COLE / 345 1 -0,42617 27028 11GR RV 161 27553 14WILSOS 161 1	0.35439 27551 14REID 5 161 27559 14DAVIS5	
0.02156	0.02156	0.07643	0.14145	0.14133	-0.08491	0.05047	0.04931	0.07337	0.19076	0.03094	-0.32745	-0.19076	-0.47404	0.14620	-0.13473		0.06255	1/920.0-	0.19147	-0.09207	. 0.02132	0.05468	0.05445	0.21196	0.07721	-0.02132	0.55288	-0.03569	-0.34299	0.15092	0.11970	0.10814	0.02986	0.02137	95950.01	0.02261	0.02009	0.02631	0.07989	-0.03867	0.16986	-0.10425	0.02463	0.06311	-0.02463	0.08723	0.23145	-0.38687	0.03218	0.56885	0.15845	
-2256.4 *	-1785.0 *	11.7 R	279.7 *	280.6 *	323.6 *	360.6	435.3 *	470.9	496.9	505.5	533.6	545.1 *	545.7 *	610.4 *	708.8 .		14.3 R	37.0 K	207.1 *	298.4 *	322.2 *	331.6 *	427.4	447.2 *	447.5	490.6	503.7 *	508.7	5.604	591.3 •	\$ 1.7 es	676.5	705.7 *	731.9 *		-2133.2 +	-2115.6 *	-502.7	11.2 R	27.5 R	232.7	263.5	278.9 +	288.4 4	389.1 *	396.1 *	409.6 *	451.7	486.0 *	489.6 *	563.2	1
		750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.000		750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	
GROUP_28	GROUP_28	GROUP_28	GROUP 2B	GROUP_2B	GROUP ZB	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 2B	GROUP 2B	GROUP 2B	GROUP_ZB	GROUP_2B		GROUP_3B	GROUP_38	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	archae archae	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	OF SOCIETY
UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC4S	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45		UNIT2_PHC45	UNITZ PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45 .	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45 UNIT2_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	

C888: 2004 SUMMER PEAK ECAR BASE CASE W45P61_S: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 LF C888: W45P61_S.884; MON: PHC.mon; SUBSYST: PHC.8ub; CONT: PHC.con; EXCL: PHC.EXC

	171.7 193.3 1.56% -66.6 -138.1 5.92%	44.7	-43.1 -108.8 3.21% 0.98%	55.4 . 25.2 157.73%	. 31.5 1	250.0	1	162.3 161.2 13.73¢	8. 56 8. 56	-69.2 12	65.8	65.7	54.5	8 -51.5	ن و .	-60.5 -51.8 IU.665	1.78	93.2	-55.3	117.9 144.2 21.62%	. 8.891	8.67	-165.4 28	49	196.7 370.3 25.024	-111.1	23.3 38	-166.9 3	20.2 23.5 13.86%	- m	16.2	124.1	31.8 7.1 24.934		-110.4	-66.6 -137.7 4.70%	2.23		128.7 -128.3 27.23% 162.3 161.2 13.21%	65.8 60	65.7 60.	-18.8 -52.1 28.53%		164.9 29	87.1	104.1 -151.2 25.55%	8.6L-	142.4	196.7 359.6 22,154		119.7		20.6 140.5 7.76%
	243.5	0.65	-179.0 164.8	40.7	6.05	343.6	-176.0	175.5	1.84.7	0.851	116.7	116.7.	78.9	-148.4	157.8	4.46	157.8	142.0	-81.8	164.8	45.7	-58.7	-264.3	-226.7	6. 26.5	-215.7	-59.0	-213.1	9.4	142.7	40.6	265.0	-83.7	164.8	0.671-	-181.6	116.7		-176.0	116.7	116.7	-148.4	54.6	263.8	157.8	-264.3	-557.7	164.8	6.765	-181.6	265.0		264.9
243.5 191.6 19.0 10.7 10.0	221.0	41.3	73.7	4.68	4.68	386.1	-176.9	176.6	186.9	156.1	77.1	77.0	72.1	-121.0	139.6	-100.7	136.4	158.8	-72.2	130.2	1.8.1	2.0	-160.3	-52.0	319.4	175.8	-12.5	-199.0	39.0	71.2	2.61	175.8	26.1	117.9	T. 67-	-86.1	43.5		-176.9	77.1	77.0	-121.0	39.0	9.651	136.4	-160.3	-299.0	130.2	319.4	1.86.1	175.8		75.8
	765 22671 05ROCKPT 765	138 27152 11W LEBN 138	14WILSO7 345	10NEWIVL 138 26886	LONEWTVL 138 26886	SPARADIS 161 18926	27560 14HENDRS 161 27617 14HENDR4	26851 10CULLEY 138 26875 10ANGMRD	27002 11ALCALD 345 27004 11BRWN N	29432 20MAYBVJ 138 29566 20SPURLK	27024 1140-Aud 343 27034 118888 N	27028 11GR RV 161 27095 11GR RVR	27061 11BONNIE 138 27141 119HREWS	26851 10CULLEY 138 26879	27095 11GR RVR 138 27126 11OHIO C	27093 11GODDRD 138 27137 11RODBRN	11101 BBAD CRK 500 11102 BJCCASSE 27055 110HIO C	29386 20JKSMIT 161 29500 20POWELL	27061 11BONNIE 138 27141	27561 14WILSO7 345 27563 14COLE 7	23051 05FULLER 138 23173 05MILLER	27028 11GR RV 161 27553 14M15505	27028 11GR RV 161 27553 14WILSO5	27028 11GR RV	27028 11GR RV 161 27553 14WILSOS	27561 14WILSO7 345 27563 14COLE 7	23051 OSFULLER 138 23173 OSMILLER	27064 11BRWN N 138 27101 11HIGBY	27028 11GR RV 161 27042 11RQ TAP	27028 11GR RV 161 27553 14WILSOS	23051 05FULLER 138 231/3 05MILLER 23061 1100NNIE 138 27141 115HREMS	27561 14WILSO7 345 27563 14COLE 7	OSFULLER 138 23173 OSMILLBR	n 27061 11BONNIE 138 27152 11W LEBA	n 27561 14MILSO7 345 27563 14COLE	14MILSO7 345 27563 14COLE 7	Base Case		27560 14HENDRS 161 27617 14HENDR4	25851 10CULLEY 138 28875 10ANGTALD 27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	26851 10CULLEY 138 26879 10GRNDVW	27028 11GR RV 161 27042 11RQ TAP	27095 11GR RVR 138 27126 11OHIO C	27095 11GR RVR 138 27126 11OHIO C	27028 11GR RV 161 27553 14WILSOS	27561 14WIL907 345 27563 14COLE 7	27028 11GR RV 161 27553 14M1LSOS 27561 14W1LSO7 345 27563 14COLE 7	27028 11GR RV 161 27553 14WILSO5	27561 14WILSO7 345 27563 14COLE 7	27028 11GR RV 161 27553 14MILSOS	TOTAL TREET CAS (OSTIMAT TOS)	C:Open 27028 11GR RV 161 27553 14WILSO5 161 1
77551 IAWILGOT 365 22673 IGCOME 7 345 1 77551 IAWILGOT 365 22673 IGCOME 7 345 1 77552 IAWILGOT 365 22553 IGCOME 7 345 1 77554 IAWILGOT 365 27553 IGCOME 7 345 1 77552 IAWILGOT 365 27553 IGCOME 7 345 1 77553 IAWILGOT 365 27553 IGCOME 7 345 1 77554 IAWILGOT 365 27553 IGCOME 7 345 1 77555 IAWILGOT 365 27553 IGCOME 136 1 77550 IAWILGOT 365 27563 IGCOME 7 345 1 77550 IAWILGOT 365 27563 IGCOME 7 345 1 77551 IAWILGOT 365 27563 IGCOME 7 345 1 77552 IGCOME 7 345 27563 IGCOME 7 345 1 77553 IGCOME 7 345 27563 IGCOME 7 345 1 77554 IAWILGOT 345 27563 IGCOME 7 345 1 77555 IGCOME 7 345 27563 IGCOME 7 345 1 77556 IGCOME 7 345 27563 IGCOME 7 345 1 77557 IGCOME 7 345 27563 IGCOME 7 345 1 77558 IGCOME 7 345 27563 IGCOME 7 345 1 77559 IGCOME 7 345 27563 IGCOME 7 345 1 77569 IGCOME 7 345 27563 IGCOME 7 345 1 77569 IGCOME 7 345 27563 IGCOME 7 345 1 77569 IGCOME 7 345 27563 IGCOME 7 345 1 77569 IG	08BATESV 138 25182 07HUBBLE	11BONNIE 138 29227	-0.15549 27094 11GR STL 138 27095 27126 110HIO C 138 27141	10NEWTVL 138 26886	10NEWIVL 138 26886	SPARADIS 161 18691	26855 10NEWTVL 138 26879	26851 10CULLEY 138 26879 10GRNDVW	20PITTSB 161 29602 20TYNER	11FLEMIN 138 27093	27023 IIDELVIN 161 27045 IIMI IAP	27028 LICK KV ISI 27095 LICK KVR 57028 LICE BV 161 27095 LICE RVR	11LEITCH 138 27240	10NEWTVL 138 26857	11GR RVR 138 27126 110HIO C	11FARM T 138 27143	11172 SROBBINS 161 18040	27034 11LR TAP 161 27045	27109 11LEITCH 138 27141	110HIO C 138 27141	05GRAYSB69.0 29198	14COLE 5 161 27564	14SKILMS 161 27564	26857 10NEWTVL 161 27552	27561 14WILSO7 345 27563 14COLE 7	27028 11GR RV 161 27553 14WILSOS	11084 SNANTAHA 161 11172 24084 OSPLYM G69.0 24091	27057 11BKR LN 138 27064	27216 11GR RVR69.0 27271	26855 10NEWTVL 138 27079	24077 05FRANKN69.0 24084	27551 14RRID 5 161 27559	29196 20ARGTM 138 29198	11BONNIE 136 29227	27126 110HIO C 138 27141 115HREMS 27094 11GP STI. 138 27095 11GB RVR	27025 11EARL N 161 27042 11RQ TAP	27028 11GR RV 161 27095 11GR	11GR RV 161 27095 11GR	138 26879 10GRNDVW	10CULLEY 138 26879 10GRNDVW	2/028 11GK KV 161 2/095 11GK KVK	10NEWIVL 138 26857 10NEWIVL	0.21911 27216 11GR RVR69.0 27271 11RQ TAP69.0 1	27095 11GR RVR 138 27126	27552 14COLE 5 161 27564 27095 1108 BUR 138 27126	27558 145KILMS 161 27564	11GR RV 161 27553 14WILSOS	10NEWTVE 161 27552 14COLE 5	27126 110HIO C 138 27141 115HREWB 27561 14WILSO7 345 27563 14COLE 7	27025 11EARL N 161 27042 11RQ TAP	10NEWTVL 138 27079		14RBID 5 161 27619
Colored 2018 Colo	0.03505	0.02558		02066	0.02066	0.02320	0.07278	-0.03359	0.05110	0.02045	0.02077	0.18026	0.02700	-0.10659	0.06922	0.02210	-0.08029	-0.05246	-0,02700	0.09365	0.13704	0.23945	-0.13704	-0.38166	0.57078	-0.52847	-0.08029	-0.02797	0.03089	0.13177	-0.09237	0.15800	-0.17422	0.02693	0.07128	-0.13871		0.10134	0.06509	-0.03238	0.14642	-0.09299	0.04624	0.04944	0.23024	-0.23024	-0.53548	-0.35767	0.06937 FP747	-0.17519	0.12496	01410	27855
0.01372 0000 00000000 131 0110 0110 0110 0110	642.7	692.5	710.8	9.254.9	-1863.0	-1832.3 *	12.3	71.7	41.9	83.2	181.9 R			257.8	262.9		293.2				371.1	395.9	434.7	457.8 *	487.9 *	489.5	502.7	502.9			548.8	564.8			658.3	688.5			13.7 R	32.8	270.2	295.4			411.7	451.7						+ 5.599	
14.27 1.0.1417 1.0.1417 1.0.1418 1		750.0	750.0	0 056	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.067	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	0.057	0.027	750.0	750.0	750.0	750.0	750.0	0 0 0 0 0
15. 1.0. 1	GROUP_4B	GROUP 48	GROUP_4B	9 01000	as dnoap	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP, SB	Be_goods	GROUP SB	GROUP_SB	GROUP_5B	GROUP_5B	as diode	GROUP SB	GROUP_SB	. GROUP_5B	GROUP_5B	GROUP_5B	GROUP 5B	GROUP_SB	GROUP_5B	GROUP_5B	GROUP 5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_68	GROUP 6B	GROUP_6B	GROUP 6B	GROUP 6B	GROUP 6B	GROUP_6B	GROUP GR	GROUP 6B	GROUP_6B	GROUP_68	GROUP 6B	GROUP_68	ES GILORE	an discount
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC4S	PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PRC45	INITO PHC45	UNIT2 PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC4S	UNIT PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2 PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC4S	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	SPURIO	UNITZ_PHC45

Case: 2004 SUMMER PEAK ECAR BASE CASE W45P61_S: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 LF Case: W45P61_S: 38v; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

£3

	14.16%	71.861	71.69	33.024	13.454	17.154	31.25	9.554	16.961	20.761	27.71	4.764	46.461	24.364	24.031	18.824	10.004	9.614	8.33k	2.524	1.261	1.164	26.491	6.324	12.504	2.73\$	1.278	159.461	107.478	31.884	15.154	78.461	31.631	12.961	16.224	13.55	16.12%	27.24	23.71\$	45.154	22.904	11.37\$	9.89.6	12.914	3.154	0.821	107.0	0.294	157.65\$	106.021	36.394	14. 22%	72.08%	71.917	13.541	17.241	14.551
162.06 6.821						./1 5.56											177 7 18.					104.3	162.3 26.				338.4	25.2 159.				65.8 78.					143.0 16				400.7 22				187.3 3		•	₽,	25.2 157					17 7.59			
	162.3		e.	•			12.9				7						34.8					.76.2 -10	162.3 16				6.2 33	55.4		,		43.5					-53.1		•		216.3 -40				E. 4.3	٠			55.4		128.7 1			43.3	•		75.2
				•						•	7						·			•	_					.,					-								•		•		-										٠		'		
	20550 0-	0.09289	0.09254	-0.12281	0.00523	0.03570	0.03520	F. 0.00523	0.06155	0.00876	-0.13770	0.01095	-0.23791	-0.38013	0.34734	58090.0-	0.06303	0.02827	0.01835	0.01316	-0.03913	-0.03903	0.00001	-0.00021	0.33958	0.02588	0.44989	0.01339	0.01339	0.03672	-0.03566	0.09869	-0.12157	0.00548	0.03453	0.03147	-0,00548	0.12696	-0.12696	-0.23856	0.35245	0.00528	0.02899	0.05608	0.01821	-0.08755			0.01278	0.01278	0.03444	-0.03338	0.09308	0 09273	-0.12291	0.03580	0.03262
	175 5	116.7	116.7	-148.4	78.9	157.8	8.75I	0.59.	164.8	54.6	-264.3	164.6	-226.7	-557.7	597.9	-129.9	142.7	2,181.6	40.6	59.0	-154.0	-154.1	175.5	-176.0	6.765	7.922	597.8	40.7	50.9	-176.0	175.5	116.7	148 4	78.9	157.8	157.8	-81.8	263.8	-264.3	-226.7	597.9	7.12	265.0	142.7	40.6	-181.	116.7	116.7	40.7	50.9	-176.0	175.5	116.7	116.7	-148.4	157.8	157.8
	3 37.1	77.1	77.0	-121.0	72.1	139.6	136.4	0.69.	130.2	0.66	-160.3	152.1	-52.0	-299.0	319.4	-74.4	71.2	B. 5. 1	19.5	41.3	-112.6	-112.6	188.3	-154.1	200.7	107.2	120.3	89.4	4.68	-176.9	176.6	17.1	2.7.0	72.1	139.6	136.4	-72.2	169.0	-160.3	-52.0	319.4	0.86	175.8	71.2	19.5	-86.1	5.5	43.3		1.68	-176.9	176.6	17.11	77.0	-121.0	139.6	136.4
1 4	1 .		138 2	138 1	38 1	38.2	138 1	1 101 1	138 1	161	161 1	345 1	161 1	345 1	161 1	1001	161 1	345 1	138 1	38 1	1 00	2 00	345 1	345 1	345 1	345 1	345 1	-			138 1		138 2	138 1	138 2	138 1	138 1	345 1	161 1	161 1	161 1	345 1	345 1	161 1	138 1	345 1	1		;		38 7	138 1	138 1			138 1	7 861 7
L PRUNDA	ACT GRADIES	15ANGMND 138	11GR RVR 1	10GRNDVW 1	11SHREWS 138			1 CODENC 1						14COLE 7 3	14WILSOS 1			14COLE 7 3	. 2		OAKBORO 1	OAKBORO 1	14COLE 7 3		7	7	14COLE 7 3	O 69 INLESS	10NEWTVL69.0	14HENDR4 138	1 DANGMUD 1	RVR		IDGRNDVW I			9	140006 7 3			ម្ត				<u> 5</u>	14COLE 7 3			a de la constanta de la consta	26886 10NEWIVL69.0	14HENDR4 138	1 DANGMID 1		11GR RVR 138	10GRNDVW 1	11SHREWS 138	, ,
27617	110/7	138 26875	27095	26879	27141	27126	27126	110 27141	141/7	27042	27553	27011	27553	345 27563	161 27553	11192	27553	345 27563	27141	27152	100 11291 (100 11291 (345 27563	27563	27562	27563	345 27563	36826 961	26886	27617	26875	27095	27095		27126	27126	27141	345 27563	27553	27553	27553	345 27563	27563	27553	27141	345 27563	586/7					26875	27095	27095	26879	138 27141	
14thewnes 161				~		LIGH RVR 1		TIGK KV II				-		14WILSO7 34	11GR RV 16			14WILSO7 3		11BONNIE 1:	ALBEMARL 10	ALBEMARL 10	A TOSTINAL			14WILSO7 3	14WILSO7 3	T OND DATE: 1		14HENDRS 1		R		1 BONNIE 1				14WILSO7 3	. A	NA V		14WILSO7 3	507			14HILSO7 3	14WILSO/ 3			10NEWTVL 138	14HENDER 1				TOCOLLEY 1	11BONNIE 1	GR KVK L
27560	2 1360 T4	26851	27028	26851	27061	27095	27095	27028	190/7	27028	27028	27002	27028	27561	27028	11087	27028	27561	27061	27061	11192	11192	27561	27561	27561	27561	27561	3007	26855	27560	26851	27028	27028	26851	27095	27095	27061	27561	27028	27028	27028	27561	27561	27028	27061		C:Open 27561 14	0 0	į	26855	27550	26851	27028	27028	26851	27061	27095
	rado: o	C:Open	C:Open	G:Open	C:Open	C:Open	C:Open	c:oben	uado:	1000	u e do : D	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	redo: D	C:Open	C:Open	C:Open		1000	0:0	C;Open	C:Open	4	indo: 0	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	Ctopen	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open	uedo: D	Base Case		C:Open	rado: 5	C:Open	C:Open	C:Open	C:Open	C:Open	C:Open
130 1		138 1	136 1	1 191	1 0.65	C 138 1	138 2	1 191	1 961	1 0 6	1 191	161 1	5 161 1	161 1	345 1	100 2	138 1	161	1 197	1 0.69	100 2	1001	138 1	1 1 1 1 1	345 1				7 0 69	138 1	138 1	138 2	138 1	161 1	C 138 1	C 138 2	138 1	138 1	161 1	161 1	345 1	161 1	1 0 7 1	138 1	69.0 1	161 1	RVR 138 1	138 1		69.0.2				138		69.0 1	136 1
BEL MININGOOT	INGRADOW 138	26879 10GRNDVW 138	27095 11GR RVR 136	26857 10NEWTVL 161	11LEIT	LIONIO	110HIO C	140ATALS 161	11 CUDDING	1180 TABES	14NATALS 161	11FARLEY 161	14COLE	14WILS				14DAVISS				OAKBORO	MANAGOL	TOGRADOL	14COLE 7	14COLE 5	14REID		10NEWTVI.69 0	10GRNDVW 138	10GRNDVW	11GR RVR		IONEWIVE 161	LIONIO	LIORIO			14NATALS		14COLE 7		14DAVISS 161	11CLVRPR		11RQ	1108	11GR		S 10NEWTVL69.0	S 10NEWIVL69.0	9 10GRNDVW 138					6 110HIO C 138
00000		138 26879						161 2/564	191/2 861									161 27559				100 11291	178 25870			161 27552			138 26886	138 26879		161 27095		138 26857					161 27564				161 27559	138 27079	9.0 29571			161 27095		138 26886	138 26886	138 26879					138 27126
Table	NEWIVE	COLLEY	GR RV	TAL				ACOLE 5	Delica .		4SKTIMS 1	TALCALD 1		IGR RV 1			ONEWIVE	4REID 5 1	LEAKL N 151		LBEWARL 1	CBEMARL 1	. Variation						ONEWIVE						LOR RVR				45K11M5			1GR RV	IGR RVR69.0	ONEWTVL	1E VIEW69.0	LEARL N	916	1GR RV		ONEWIVE	ONEWIVE	ONEWLYL			Į.	TCH.	11GR RVR
1 100mm plate 1	Z6855 IONEWIVL	0.16225 26851 10	27028 1	-0.62960 26855 1	-0.31949 Z7109 I	0,75819 27095 1	0.74075 27095 1	27552 1	0.31949 27109 1	0.06288 2/128 1	27558 1	27016 1	26857 1	27028 1	27561 1	11087 B	26855 1	27551 1	27205 1	0.32160 27061 1	11192 A	11192 A	1 13050	1 10007	27561 1	26857 1	27561 1		1 55882	26855 1	0.16225 26851 1	27028 1		-0.62960.26855.1	0.75819 27095 1	0.74075 27095 1	0,31949 27109 1	0.06288 27126 1	0.25946.27552.1 0.25946.27558.1	0.35636.26857 1	-0.56714 27561 1	27028 1	1 27216 12 12 12 12 12 12 12 12 12 12 12 12 12	-0.16837 26855 1	-0.25375 27205 1	-0.09930 27025 1	-	27028 1		0.61372 26855 10NEWTVL	26855 1	7 26855 1	U.16225 28831 U		_		0,75819 27095 1
	0.40677	0.16225	0.77439	-0.62960	-0.31949	0.75819	0.74075	-0.25946	0.31949	0.00288	25946	22525	0.35636 26857	-0.42017	-0.56714	0.75158	-0.16837	0.35439	25775 0-	0.32160	0.47786 11192	0.47727 11192	19090 30001 0	-0 12002	0.64389	0.41731	0.57983 27561		0.61372 26855	0.40677	0.16225	0.77504	0.77439	-0.62960	0.75819	0.74075	0.31949	0.06288	-0.25946	0.35636	-0.56714	-0.42017 27028	0.21911	-0.16837	-0.25375	-0.09930	-0.15545			0.61372	0.61372	0.40677	0 77504	0.77439	-0.62960 26855	-0.31949 27109	0.7581
00000	0.07229	-0.03460	0.16448	-0.10187	0.02322	0.06036	0.05897	0.23632	-0.02322	65500.0	26362.0-	0.02711	-0.37338	-0.52607	0,56293	-0.10659	0.12703	0.15136	19041.0-	0.02558	-0.05778	-0.05771		26880.0	25629	0.16759	0.64679		0.02160	0.02160	-0.03691	0.17489	0.17474	-0.09912	0.022/0	0.05705	-0.02270	0.08156	0.22232	-0.36940	0.56069	-0.51525	0.02908	0.11990	0.03189	-0.13496	-0.14235	0.09869		0.02062	0.02062	0.07251	20,039/3	0.16495	-0.10189	0.02331	0.06053
	12.4 R	30.7 R	241.1	269.7 *	* 7.862	301.5	364.0 *	401.1	412.6	414.4	440.0	4 4 6 4	468.0 •	491.7 *	494.7	520.7 *	563.1 •	589.6 *	634.1	692.4 *	716.0 +	719.5			631.0	713.0 *	738.2 •		-2252.4	11.8	28.8 %	226.2 *	226.9 *	277.2	311.6	376.2	422.1 •	423.6 •	426.6	473.0 •	4 6.7 +	502.1 *	537.8 •	596.7	. 4.099	107.6 *	739.3 *	741.3	;	-2358.9 *		12.3 R	30.6 K	240.6	269.6 *	294.7 *	300.6
	750.0	750.0	750.0	750.0	750.0	0.057	750.0	750.0	750.0	0.007	0.057	0.01	750.0	750.0	750.0	0.057	750.0	750.0	750.0	750.0	0.057	0.027		0.007					750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0				750.0	750.0	750.0	750.0	750.0	0.057
	•		•	•		•		•		•	•		٠		•	•	•		•		•	•			•																																
410000	GROUP_7B	GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GPONE 78	GROUP 78	BY GROUP	GROUP 78	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 78	GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	41000	GROUP BB	an alload	GROUP 6B	GROUP_8B		GROUP_NB	GNOOF NE	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GKOOF NE	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	GROUP SB
: :	45	45	45	45	45	45	ž.	5			j	י ני	i s	45	45	45	45	2. i		5 5	45	. 54				25	45		5	٠	. E	45	.45	S. i	5 4	ŧ.	4.5	14.5	S. r	ć 2			.45	5 5	5	.45	145	45	r e	:45	:45	145	.45	345	.45 .45	.4S	.45
	UNITZ PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2 PHC45	UNITZ_PHC45	UNITZ_PHC4S	UNITZ PHC45	UNIT2 PHC45	UNITZ PHC45	UNIT2 PHC45	UNIT2 PHC45	INIT2 PHC45	UNITZ PHC45	UNIT2 PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2_PHC45		UNITZ PRC45	UNITE PHEAS	UNITZ PHC45	UNIT2_PHC45		UNITZ_PHC45	UNITZ PHC45	UNIT2 PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45		UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	ONITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ_PHC45	INIT2 PHC45

	EXC.
	C.com; EXCL: PHC
(Contraction)	RADISE 161 IC.sub; CONT: PH
	SE CASE N WILSON 345 PA 10n; SUBSYST: PH
	R PEAK ECAR BA W SPLIT BETWEE S.sav; MON: PHC.n
	Case: 2004 SUMMER PEAK ECAR BASE CASE WASPEL_S: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 [F. Case: WASPEL_S: Ssay: MON; PHC.mor; SUBSYST; PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

F T.

10 A

á	151	9 . 64	04.		61.	170	44	78.	618	9.194	541	9.541	4.55.6	2.38\$	-										
P.	_					120.01 6.		•	_		.2 10.64														
Pailbase		-55.2	143.4	24.0	-164.7		2 8 9 5		70.2	122.7	-74.2	-140.2	16.1	45.1											
	112.9	-53.1	117.9	20.3	-104.1	7.5.7	106	7.00	34.8	106.1	-42.5	9.99-	4.3	36.1											
. Д		527	1,13	1872	732	834	9 10	2 6	1561	1830	1277	1594	1843	9621					•						
Parte	0.13732	-0.0052	0.06173	0.00872	-0.13732	-0.23834	34334	0.34/35	0.06241	0.02830	-0.05277	-0.11594	0.01843	0.01296											
1	263.8	-81.8	164.8	54.6	-264.3	-226.7	,,,,,,	6.766	142.7	265.0	-129.9	-181.6	40.6	59.0											
		-72.2	130.2	39.0	160.3	-52.0	0.667	4.61	71.7	175.8	-74.4	-86.1	19.5	41.3											
Br468 (CE	16	۲-	£1	m	-16	ur :		F ;	ין ר	, 11		1		•											
4	1		-	-	-1	н.	٠,	٠,		e' e-	H		-	.1											
	27028 11GR RV 161 27553 14WILSOS 161	C:Open 27061 11BONNIE 138 27141 11SHRENS 138	14COLE 7 345	11RQ TAP 161	L905 161 1	27553 14WILSOS 161 1	14COLE 7 345	27553 14WILSOS 161 1	14WILGOS 161	LE 7 345	ALBEMARE 100	LE 7 345	119HREWS 138	C:Open 27061 11BONNIE 138 27152 11W LEBA 138											
Continuency	553 14WI	141 11SH	27563 14C0	27042 11RQ	27553 14WIL905	553 14WI	27563 1400	553 14WI	275ET TANTIGOE	14WILSO7 345 27563 14COLE 7	11192 ALBE	27563 14COLE 7	27141 119H	152 11W											
ont today	161 27	E 138 27	7 345 27	161	161	161 27	7 345 27	161 27	72 585 7	7 345 27	100	345	E 138 27	E 138 27											
0	11GR RV	LIBONNI	14WILSO7 345		11GR RV	11GR RV		11GR RV	LIALCALD 345	14WILSC	BADIN	14WILSO7	11BONNIE 138	11BONN											
	en 27028	en 27061	C:Open 27561		en 27028	C:Open 27028	C:Open 27561	C:Open 27028	C:Upen 2762	C.Open 27561	C:Open 11087 BADIN	C:Open 27561	en 27061	en 27061											
	C:Open	d: ob	C:Op	C:Oben	C:Open	<u>Б</u>	6	Ö:	5 6		0:0	0:0	C:Open	d:ob											
	161 1	138 1	138 1	69.0 1	161 1	161 1	161	345 1	151 1	1 191 1	100 2	1 191 1	10.691	10.69											
Place And Compression	14NATAL	1.1SHREWS	11SHREWS	11RQ TAS	14NATALS 161	14COLE 5 161	161 27553 14WILSOS 161 1	14COLE	11FAKLE)	55 IONEMIND 138 2/0/9 IICLYKFK 138 1 51 14PRID 5 161 27559 14DAVIS5 161 1	ALBEMARL 100 2	11RQ TAP 161 1	20STEPHN69.0 1	ZOBONNI											
to a Con	1 27564	8 27141	8 27141	0 27271	1 27564	1 27552	1 27553	5 27563	72072 1	1 27559	100 11192	1 27042	0 29571	18 29227											
1	OLE 5 16	RITCH 13	HZO C 13	R RVR69.	KILMS 16	EMTVL 16	R RV 16	11.507 34	SCALD 16	ET CALLE	IN 10	ARL N 16	VIEW69.	ONNIE 13											
	7552 140	710 91E	7126 110	7216 119	7558 149	6857 10N	7028 119	7561 148	7016 11A	6855 10N	1067 BAD	7025 11E	7205 11E	7061 11B											
ı	-0.25946 27552 14COLE 5 161 27564 14NATAL5 161	0.31949 27109 11LEITCH 138 27141 11SHREWS 138	0.06288 27126 110HTO C 138 27141 11SHRENS 138	0.21911 27216 11GR RVR69.0 27271 11RQ TAP69.0	0.25946 27558 145KILMS 161 27564	0.35636 26857 10NEWTVL 161 27552	-0.42017 27028 11GR RV	-0.56714 27561 14WILSO7 345 27563 14COLE 7 345 1	0.22525 27016 ILAUCALU 161 27027 ILFAKLET 161 1	0.35439 2759 0.35439 2759	0.75158 11087 BADIN	-0.09930 27025 11EARL N 161 27042	.0.25375 27205 11E VIEW69.0 29571	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0											
	8		_	0.03584 0	_	_				0.12594		•	0.03276 -0	0.02547 0											
		-0.02331	0.0	0.0	-0.23598	-0.37384	9.	Š.0				-	0.0	0.0											
Ser	401.7	411.1	413.5	436.3 *	440.7 •	467.4	491.6	494.6	• 0.664	583.6	6009	634.8	643.3	695.5											
10.00	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0											
1																									
	3B	88	ES.	85	as,	-sB	8S,	-88	85 E		3, 5	. 88	88												
	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	group sa	GROUP SB	GROUP SB	GROUP SB	GROUP_SB				. •						,	
	5	u	2		5	s.	un.	ı,		י ע	מני	LO.	un.	LIN.						٠					
	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2_PHC45											
	5	5	5	5	5	3	5_	5	5	5 E	5	5	5	5	_										

Case; 2004 WINTER PEAK ECAR BASE CASE W45P61 W: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 LF Case: W45P61_WSav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

िक जिल्ला

FCITIC MULTIPLE TRANSFER REPORT: W45P61 W+UNIT2 PHC45.TRA MUST Title: ... MUST 3.20 ... TRU, JAN 31 2001 14:43 ... TITLE: 2004 MITER PARK ECAR RASE CARB TITLE: REPORT, RELT REPORT PRET REPUREN MILEON 345 & PARADISE 161 Monitor File: CARV-USERS/NOBOOY/PHC.mon CONTINUENCE FILE: CARV-USERS/NOBOOY/PHC.canb Exclude File: CARV-USERS/NOBOOY/PHC.canb

				-							
Reporting the firs	first 200 violations per transfer	er er								100	
Produ	2	Feire E	401	Chopp Charter the Charting Construction of	Congluyency Seas 100 Congluyency		51.8		39.7		54.44
UNITZ_PRC45	ALL B 750.0	1874.1	0.02133	1 C:Open	26855 10NEWIVE 138 26886 10NEWIVE69.0 2	64.0	60.1	0.01322	7.66		33.114
UNIT2_PHC45				0,77495 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open	161	124.3	132.2	0.09507	70.2	74.6 85	109.68
UNIT2_PHC45			0.16832	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open	161	124.2	132.2	0.09471	97.5		21.614
UNIT2_PHC45	ALL B 750.0	.0 119.6	0.05883	0.75817 27095 11GR RVR 138 27126 11OHIG C 138 1 C:Open 27099 0.59587 27079 11CIVRPR 138 27034 11GR STL 138 1 C:Open 2703	27095 11GM KVK 138 27126 11CHIO C 138 2 27012 11SMITH 345 27142 11SMITH 138 1	-181.1	-189.3	0.00237	-36.7		15.874
UNITZ PHC45			-0.07571	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1 C:Open	161 27617 14HENDR4	188.6	176.0	-0.03507	_		25.10%
UNIT2_PHC45	ALL_B 750.0		-0.10642	-0.32916 27012 119MITH 345 27142 118MITH 138 1 C:Open	138 27100 11HARDN	-287.2	-307.3	-0.08954			19.434
UNITZ PHC45			0.05748	0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open	138 27126 110HIO C	161.0	171.9	0.03171	98.8	257.9 19	19.384
UNITZ_PHC45			-0.10642	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1 C:Open	27099 11HARDBG 138 27100 11HARDN 138 1	-285.5	0.406.	0.08934			13.14%
UNIT2_PHC45			0.02293	-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0 1 C:Open	138	3.515-	-557.4	0.36848			25.704
UNIT2_PHC45	ALL B 750.0	.0 472.5 *	-0.51622	-0.42013 27028 110K KV 161 27353 14M16505 161 1 C.Open	161	83.1	142.2	0.05939	43.5	72.4 22	22.47
UNITZ PHC45	A55 8 750.0		0.56061	-0.16631 26633 LONDRING 130 27073 LICAVAR 130 1	161 27553 14WILSOS	319.8	597.8	0.35165	186.5		23.834
UNIT2 PHC45			-0.20320	0.22051 26855 10NEWIVL 138 26857 10NEWIVL 161 1	18 11GR RV 161 27553 14WILGO5 161 1	-58.9	-168.8	-0.12195	-7.1		25.181
UNITZ PHC45	-		89696.0-	0.35634 26857 10NEWTVL 161 27552 14COLR 5 161 1	18 11GR RV 161 27553 14WILSOS 161 1	-37.5	-242.2	-0.23838	46.3	-85.7 25	29.964
UNITZ PHC45	. 20		0.09507	•		70.2	132.2				7.04
UNIT2_PHC45			0.09471	- 27028 11GR RV 161 27095 11GR RVR 138 1		6.69	132.2			8 000	1 8 9
UNITZ_PHC45	ALL B 750.0	.0 663.8 •	0.22561	-0.25941 27552 14COLE 5 161 27564 14NATAL5 161 1	18 11GR RV 161 27553 14WILSOS 161 1	184.5	334.3	2,3002	6.62.0		4 64 %
UNITZ PHC45			0.03227	-0.25368 27205 11E VIEW69.0 29571 20STEPHN69.0 1		30.0	8.13	-0 13002	.114.6		3.054
UNITZ_PHC45			-0.22561	0.25941 27558 145KILM5 161 27564 14NATAL5 161 1	į	A 646-	-307.3				1€2.0
UNIT2_PHC45			-0.08954			-240.7	-306.0			Ĭ	0.614
UNIT2_PHC45	ALL_B 750.0	.0 729.7	-0.08954	- 27006 11HANDN 345 27012 116MITH 345 1							
TINIT'S DUCAS	0.037 HT 9750.0	.0 -563.1 *	0.02174	0,61371 26855 10NEWIVL 138 26866 10NEWIVL69 0 2 C:Open 26855 10NEWIVL	S 10NEWTVL 138 26886 10NEWTVL69.0 1	64.0	51.8				55.034
UNIT2 PHC45		•	-0.04151	0.38383 31221 MOBERLY 161 96354 5THMHIL 161 1 C:Open	7MCCRED 345 96162 7THOMHL 345	-354.7	-334.7				15.284
UNIT2 PHC45			-0.04558	0.95083 30593 FRKN 138 30650 GRAY SUM 138 2 C:Open	FRKN 138 30650	-305.0	-286.2		. 156.4	-146.7	110.01
UNITZ_PHC45	GROUP_1B 750.0		-0.04558	0.95083 30593 FRKN 138 30650 GRAY SUM 138 1 C:Open	FRKN 138 30650 GRAY SUM 138	-305.0	-286.2	-0.02337	126.4		87.054
UNIT2_PHC45			0,06905	0.71268 31221 MOBERLY 161 31222 MOBERLY 69.0 2 C:Open	MOBERLY 161 31222 MOBERLY 69.0	3.5	75.0	0.04066	51.0		85.85%
UNIT2_PHC45			0.06865	0.70850 31221 MOBERLY 161 31222 MOBERLY 69.0 1 C:Open	MOBERLY 161 31222	, e	60.1	0.01347	39.7		33.624
UNIT2_PHC45	GROUP_1B 750.0	7	0.02174	0.61371 26855 10NEWIVL 138 26886 10NEWIVL69.0 1	SO TONEMINE ISS ZORGE TONEMINESS OF THE STATE OF THE STAT	124.3	132.2	0.09003	70.2	74.6 8	84.531
UNIT2_PHC45	•		0.15954	0,77495 27028 11GR RV 161 27095 11GR RVK 138 2 C:UPGR	110R RV 161 27095	124.2	132.2	0.08969	6.69		166.98
UNITZ_PHC45			0.15941	0,77429 27028 IIGK KV 161 27099 LIGK KVK 150 1 C.Open	11GR RVR 138 27126	164.8	171.8	0.03379	97.5		20.87
UNIT2_PHC45			0.05713	0.75817 2/095 116K KVK 130 2/126 110010 C 134 1 C-0001	11SMITH 345	-181.1	-189.3	-0.00115	-36.7		195.91
UNIT2_PHC45	GROUP_1B 750.0	155.6	-0.05272	0.5958/ 2/0/9 ILCHVAR 156 2/0/1 120/ 0/2 2/0/2 CODEN	14HENDR5 161	188.6	176.0	-0.03643	143.3		25.611
UNITZ_PHC45	GROOF 18 750.0		0.05489	G 74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open	11GR RVR 138 27126	161.0	171.9	0.03079	8.88	94.8	18.01
INITE PROS			-0.10215	-0.32916 27012	11HARDBG 138 27100 11HARDN	-287.2	-307.3	-0.08654	- 242.4		18 74%
UNIT2 PHC45			-0.10215	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	138 27160 11HARDN	-285.5	-306.0	-0.08634	54.1		12.36\$
UNIT2 PHC45	GROUP_1B 750.0	.0 266.1 *	0.02204	-0,31945 27109 11LEITCH 138 27240 11LEITCH69.0 1	C:Open 27061 11BONNIE 139 27141 11SHREWS 138 1	1.00		-0.07921	-25.4		39.64
UNIT2_PHC45	GROUP_1B 750.0		-0.09152	.0.65304 31024 MARIES 138 96292 SMARIES	TTUOMUT. 345	259.4	289.9	0.08134	188.6	216.7 1:	12.334
UNIT2_PHC45			0.08631	0.22068 31408 OVERTON 345 31409 OVERTON 151 1	CHITHREE 161 30805 JC FAIR	49.5	63.9	0.06391	38.8		30.794
UNITZ_PHC45	•		0.08031	0,39921 31239 MOKEAU ILL 31240 MOKEAU 47:0 Z	44WILSO7 345 27563	-313.5	-557.4	-0.37921	-235.1		26.78\$
UNITZ_PHC45	GROUP_1B 750	750.0 465.2	0.12216	-0.16831 26855 10NEWTVL 138 27079 11CLVRPR 138 1		83.1	142.2	0.05833	43.5	71.8 2	7/ R. 22
UNITZ PHC45			0.56029	-0.56709 27561 14WILSO7 345 27563 14COLE 7 345 1	11GR RV 161	319.8	597.8	0.34524	186.5		162.96
INITE PHC45			-0.20637	0.22051 26855 10NEWTVL 138 26857 10NEWTVL 161 1	161	6.88	-168.8	-0.12275	1. 14		31.854
UNIT2 PHC45			-0.37580	0.35634 26857 10NEWIVL 161 27552 14COLE 5 161 1	28 11GR RV 161 27553 14WILSOS 161 1	27.5	2.242.2		!		10.134
UNIT2 PHC45			0.04066	31221 MOBERLY 161 31222 MOBERLY 69.0 2		52.1					7.844
UNIT2 PHC45		750.0 601.5	0.03984	31221 MOBERLY 161 31222 MOBERLY 69.0 1	[131 POB.ITMA4 GOOGL 131 NO main and	2.5	334.3	0.13169	123.5		6.80t
UNIT2_PHC45			0.23006	-0.25941 27552 14COLE 5 161 27564 14NATALS	191	-36.6	-143.0	-0.09000	-26.7	-91.9	2.574
UNIT2_PHC45	GROUP_1B 750	150.0 724.7 *	-0.14676	0.43126 30957 LKSIDE 1 138 31024 MAKIES 130 1							407
		. 0 673	75177	0.6117; 26855 10NEWIVL 138 26886 10NEWIVL69.0 2	C:Open 26855 10NEWIVL 138 26886 10NEWIVL69.0 1	64.0	51.8	0.01324	199.7	17.76	191
UNIT2_PHC45	GROUP 2B		0.02137	0.61371 26855 10NEWTVL 138 26886 10NEWTVL69.0 1		0.4.0	60.1	0.01324	70.2		73.47\$
UNIT2 PHC45			0.14003	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2	191	124.3	132.2	0.07872	6,69		73.321
UNITZ PHC45		750.0 56.9 *	16661.0	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1	C:Open 27028 11GR RV 161 27095 11GR RVK 136 2	4 . 43 .	121.8	0.02949	97.5	101.6 1	17.691
UNIT2 PHC45		-	0.04986	0.75817 27095 11GR RVR 138 27126 11OHIO C 138 1	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2						

Case: 2004 WINTER PEAK ECAR BASE CASE	N45P61 W: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161	LF Case: W45P61 W.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC
Case: 2004 WINTER PEAK ECAR BASE CASE	W45P61_W: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161	LF Case: W45P61_W.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.cor

Control of the second

GROUP 2B 750.0	0. 36	750.0 163.4 • -0.05018	0.59507 2079 ILCUVER 113 27094 110K STL 138 1 C:Open 2702 114KUDE 162 27142	138 1 -		176.0	-0.00601	-36.7	
GROUP_2B 750.0			0,74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 11GR RVR 138 27126	138 1			0.02687	88.8	
			-0.32916 27012 115MITH 345 27142 115MITH 138 1 C:Open 27099 11HARDBG 138 27100	138.1	287.2	. 207.3	-0.07413	-242.4	259.5 14.64F
750.0		236.3 + -0.08678	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1 C:Open 2709 11HARDM 138 27100	14COLE 7 345 1 -31		Ċ	-0.32354	-235.1	
GROUP 2B 750.0			-0.56709 27561 14WILSO7 345 27563 14COLE 7 345 1 C:Open 27028 11GR RV 161 27553	161 1		597.8	0.34962	186.5	
		٠	0.22051 26855 10NEWIVL 138 26857 10NEWIVL 161 1 C:Open 27028 11GR RV 161 27553	161 1		168.8	-0.10809		-73.2 14.624
			-0,16831 26855 IONENTUL 138 27079 IICLVRPR 138 I C:Open 27028 IIGR RV 161 27553	14WILSOS 161 1 8	-37.5	142.2	-0.20751	46.3	-85.3 15.44
GROUP_2B 750.0		634:3 * -0.32280	CONTRACT TOUR TOT CODE TACORS TO TOT CODE TO TOT TOTAL	ı					
GROUP_3B 750.0			0.60927 18422 8JVILLE S00 18430 8DAVIDSO S00 1 C:Open 18425 8CUMBERL 500 18430	500 1		1731.4	0.00927	835.1	802.6
			-0.3537 18468 8VOLUNTE 500 18469 SVOLUNTE 161 1 C:Open 18018 6PHIPP B 500 18468	2001		1132.6	0.00854	1764.6	1198.8
750.0	-14		0.75412 18464 8BULL RU 500 18468 8VOLUNTE 500 1 C:Open 18457 8MBNP 1 500 18468	BVOLUNIE SOU 1 LEI	9.0191	934.9	-0.02044	237.6	237.6
750.0		pc	27019 11BLUE L 161 29248 20BLIT C 161 1 C:Open 23248 ODWAGENH AJS 23741	1 951 41		141.8	0.01412	72.2	72.5 14.134
		22.4 • 0.02751	0,56875 27156 IIMC-DD 138 27295 IIMC-DD 69.0 I C:Open 27049 IIMR F 138 27150	1 7 6 7		132.2	0.10127	70.2	74,6 95.841
		. ,	0.77495 27028 IIGR RV 161 2/095 IIGR RVK 138 Z C.Open 27028 IIGR RV 161 27095	138 2		132.2	0.10089	6.69	74.4 95.681
	,	. ;	0.77429 27028 110K KV 161 27099 110K KVK 150 A COPEN 27020 110K KV 188 27126			171.8	0.03157	97.5	101.6 19.234
			0.75817 27095 ILOK KVK ISS 27126 ILOHIO C ISS I COPEN 27560 IAURNDS 161 27617	í		176.0	-0.02746	143.3	
			-0.42491 28831 1000LLER 130 20079 100KNDVH 130 1			171.9	0.02877	88.8	
			0.74073 2.7095 ILON KVK 158 K.I.K. ILONIO LIDA C.OPCII ALCONIA 128 77100		٠	307.3	-0.07532	-242.4	258.9 15.
			-0,32916 27012 118MITH 345 27142 118MITH 158 1 CTOPEN 27099 118MIDE 138 27100	138 1	•	306.0	-0.07532	-240.7	257.5 15.
			-0.32916 27006 11HARDN 345 27012 11SMITH 345 1 C:Upen 27039 11ACOURT 118 118 11700	1 001	•	. 984	0.01217	-36.7	-33.6
		•	0.59587 27079 ILCLVRPR 138 27094 11GR STL 138 1 C:Open 27012 ILSMITH 345 2742	1 901		0.4	0.00524	54.1	97.55
GROUP_3B 750.0			-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0 1 C:Open 27061 11BONNIE 138 27141	11SHREWS 138 1 8		5.57.4	-0.34587	-235.1	405.9
GROUP_3B 750.0		•	-0.42013 27028 11GR RV 161 27553 14MILSOS 161 1 C:Open 27561 14MILSOY 352 27543			8 C 6 2	0.35229	186.5	365.1 22.
		•	-0.56709 27561 14WILSO7 345 27563 14COLE 7 345 1 C:Open 27028 11GR RV 161 27553	1 191 1		142.2	0.05700	43.5	
GROUP_3B 750.0			-0.16831 26855 10NEWTVL 136 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161 27553		. '	7.731	-0.10744	-7.1	en.
GROUP_3B 750.0			0.22051 26855 10NEWTVL 138 26857 10NEWTVL 161 1 C:Open 27028 110R RV 161 27553	٠,		243.3	-0.21179	46.3	-83.1
GROUP_3B 750.0		611.1 + -0.33504	0.35634 26857 10NEWIVL 161 27552 14COLE 5 161 1 C:Open 27028 11GR RV 161 27553	I TAN ILBO T TAN ILBO	'				10.55
GROUP_3B 750.0		612.3 0.10127	- 27028 11GR RV 161 27095 11GR RVR 138 2 Base	~ .	7.07	132.2			110.11
GROUP_3B 750.0		617.4 0.10089	- 27028 11GR RV 161 27095 11GR RVR 138 1 Base Case			777.7	10220	9.91.	
38 750.0		710.8 • 0.13908	1.00000 27180 11CANAL 69.0 27260 11FALLS 69.0 2 C:Open 27180 11CANAL 69.0		92.0		10810.0	4 51-	32.3
38 750.0		710.9 + 0.13908	1.00000 27180 11CANAL 69.0 27260 11FALLS 69.0 1 C:Open 27180 11CANAL 69.0 27260	69.02	132.0	,	0.000		21.9
38 750.0		729.0 • 0.02991	-0.25368 27205 11E VIEW69.0 29571 20STEPHN69.0 1 C:Open 27061 11BONNIE 138 27141	138 1	9.5	0.10	87/70.0	23.5	207.7
GROUP_3B 750.0		730.4 * 0.20505	-0.25941 27552 14COLE 5 161 27564 14NATALS 161 1 C:Open 27028 11GR RV 161 27553	14WILSOS 161 1 18	n	0.00			
			And the state of t		1 0 11	4.167	0.01263	835.1	803.2
GROUP_4B 750			0.60927 18422 8JVILLE 500 18430 8DAVIDSO 500 1 C:Open 18425 8JVILLE 500 18430 8DAVIDSO 500 1			9.25.6	9.00874	793.9	7.577
	750.0 -2082.3	2.3 * 0.03919	-0.35537 18468 8VOLUNIE 500 18469 5VOLUNTE 161 1 C:Open 18018 8PHIPP B 500 18468	7 905		0.971		1264.6	1197.3
			0.75412 18464 8BULL RU 500 18468 8VOLUNIE 500 1 C:Open 18457 8WBNP 1 500 18468			0.87/	0.08647		1.2.1
			0,61371.26855 10NEWTVL 138 26886 10NEWTVL69.0 2 C:Open 26855 10NEWTVL 138 26886	-	64.0	51.8	0.01406		
			0.61371.25855 10NEWTVL 136 26886 10NEWTVL69.0 1 C:Open 26855 10NEWTVL 138	26886 10NEWTVL69.0 2 6		60.1	0.01406		
	7		-0 07875 27019 11811JE L 161 29248 20BLIT C 161 1 C:Open 27079 11CLVRPR 138 27144	11TIPTOP 138 1 24		239.9	-0.01690	237.6	237.0
		۷.	20072 1108 E 1013 12002 1108 1101 1101 1101 1101 1101 110	1	124.3	132.2	0.09653	70.2	74.6
			0.77495 Z7028 IIGK KV ISL Z7095 IIGK KV ISS Z7095	138 2		132.2	0.09616	6.69	74.4
			0.77429 27028 11GR RV 161 27095 11GR RV 138 1 C.Open 27106	rq.		171.8	0.03761	97.5	101.6
GROUP_4B 750			0.75817 27095 11GK KVR 138 ZILGE LIGHT C 230 L C.C. C.C. C.C. C.C. C.C. C.C. C.C. C	138 1	•	189.3	0.00037	-36.7	-36.6
			0.59587 27079 ILCUNER I.B 4.009 ILCUNER 314 I.S. I.C. C.	138 1	188.6	176.0	-0.03690	143.3	
		œ i	- C. A. C. S. L. C.	10.69		77.2	-0.02012	44.5	
		· • ·	1.00000 24888 03KILICIONO 2 2000 11KARDBG 138 27100	11HARDN 138 1 -26	•	307.3	-0.10153	-242.4	
			C:015258 6/012 115010 145 27012 118MITH 345 1 C:0Den 27099 11HARDBG 138 27100	11HARDN 138 1 -26	-285.5	306.0	-0.10153	-240.7	258.0 22.791
	750.0	110.11	0 74077:27085 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 11GR RVR 138 27126	110HIO C 138 1 16		171.9	0.03427	9 L	
•		,	1.00000.24686 DSRICHCT69.0 24690 DSNWHTH 69.0 1 C:Open 24686 DSRICHCT69.0 24689			76.7	-0.00929	n - 50	. n
			-0.31945 27109 11DEITCH 138 27240 11DEITCH69.0 1 C:Open 27061 11BONNIE 138 27141	136 1		99	16600.0		408.6
		•	-0.42013 27028 11GR RV 161 27553 14WILSOS 161 1 C:Open 27561 14WILSO7 345 27563	-1			-0.3/132	1 1 1 1	22.9
			-0.16831 26855 10NEWTVL 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV 161 27553	161 1		7.7.7	20100.0	981	161.7
			-0.56709 27561 14NILSO7 345 27563 14COLE 7 345 1 C:Open 27028 11GR RV 161 27553	161 1		B. 7.60	20002.0		-74.0
		•	0 22051 26855 10NEWTUL 138 26857 10NEWTUL 161 1 C:Open 27028 110R RV 161 27553	161 1		168.8	-0.12179	7. 7	. 88
			0.35634 26857 10NEWTVL 161 27552 14COLB 5 161 1 C:Open 27028 11GR RV 161 27553	ı		242.2	20010	4	21.8
			-0.25368 27205 11E VIEW69 0 29571 20STEPHN69.0 1 C:Open 27061 11BONNIE 138 27141	138 1	30.0	9.70	27476	159.7	175.5
ar anous			0.07084 22570 055PORN 345 22987 05SPORNA 138 1 C:Open 22617 05NFROCT 765 23190	OSNPROCT 138 1	194.4				
		,			242.4	.,00.			
			53 - 27028 11GR RV 161 27095 11GR RVK 138 2 Base Case		7.0.7	136.2			
מייים מיים מייים מייים מייים מייים מייים מייים מייים מייים מייים מ		,	27006 11HARDN 345 27012 11SMITH 345 1 Base Case		240.7	274.2	13567	123.5	211.1
			-0.25941 27552 14COLE 5 161 27564 14NATALS 161 1 C:Open 27028 11GR RV 161 27553	14WILSOS 161 1	184.5				
			27028 11GR RV 161 27095 11GR RVR 138 1 Base Came	7		134.6	-0.13567	-114.6	-207.6
			0.25941:27558 145KILMS 161 27564 14NATALS 161 1 C:Open 27028 11dR RV 161 27553		0.0		0.01235	38.8	47.6
			The same of the sa						
			2 CODEN 27051 11BONNIE 138 27152	,	4.4		1		

() () ()

94.8 19.491						101.47 T					5.64			1.434	48.1 1.364	2					64.6 3.134	1 8.764				37.0 6.674					159.2 19.264				42.4 23.741		u	7.661	7.224				0.401	6.824		37.2 32.05%		74.4 87.61%	-36.5 17.30%				258.0 20.374		72.8 25.601	,	2.2 26.764
			Ţ			1,856						5.207.3			e .		•			.5 409.4		176.1	Ħ					-			"	ï		•	m	,	ľ			209.5	·								97.5 101		-			215.1 -413		5	-7.1 -72.
	ŗ		7			-	1.7. 8	•				2 114 6			38		70.2		•		8 46.3	793 9	-			N	7.07		-		7	,			-					9.6											ï		7			-	
200	-0.09290	0.00534	-0.38028	0.06347	-0.02495	0.34761	-0.12298	-0.23803	0.13800	0.01854			200		0.01308		0.00001	0.02270	-0.02058	0.33958	0.02588	4 200	0.04180	0.01348	0.01348	-0.01733	0.09616	0.03453	-0.03601	0.00331	-0,08868	0.03147	0.00551	-0.36267	0.35426	0.00.0	-0.23923			0.01643	-0.12687				-0.00412	0.01269	0.09325	0.09290	0.03577	-0.03310	-0.09343	0.03259	-0.09343	0.00535	0.06315	0.34651	-0.12268
171 0	-306.0	96.0	-557.4	142.2	-216.9	597.8	-168.8	-242.2	334.3	51.8	132.2	132.2	-307.3	-306.0	67.8		176.0	132.2	-189.3	597.8	242.2		1724.0	51.8	60.1	239.9	132.2	171.8	176.0	-189.3	-307.3	171.9	96.0	-557.4	597.8	142.2	-242.2	132.2	132.2	51.8	3.94.5	-307.3	-306.0		1731.4	1.09	132.2	132.2	171.8	176.0	-307.3	171.9	-306.0	86.0	142.2	597.8	1 831-
0 191	1285.5		-313.5	83.1	-205.3	319.8	6.88	37.5	184.5	30.0	70.2	6.69.9	-1/5.6	-240.7	49.6		168.0	124.3	1.181-	184.9	124.1		1810.6	64.0	64.0	240.6	124.3	164.8	188.6	-181.1	-287.2	161.0	1.08	-313.5	319.8	83.1	5.76-	70.2	6.69	30.0	184.5	-242.4	-240.7		1831.9	0.49	124.3	124.2	164.8	-181.1	-287.2	161.0	-285.5	80.1	2,515.	319.8	
					500 1	161 1	161 1	161 1	161 1	1 801			161 1		138 1		345 1			345 1	345 1		500 1	10.6	19.02	138 1		138 2		138 1			136 1		161 1	161 1	161 1	4				161 1				10.60				138	138	138	138	138	345 1		
0 01100	NUGERI	LIGHRENS	14COLE 7	14WILSOS	BJOCASSE	3 14WILSOS	14W11505	14811305	14411505	1 11SHREWS			27553 14WILSOS		11W LEBA		14COLE 7	11GK KVK	27095 IIGK KVK		-		BVOLUNTE	TONEMINT	6 10NEWTVL69.0	11TIPTOP	11GR RVR	TIGH KVK	7 14HENDR4	2 11SMITH	11HARD!	6 110HIO C	1 11SHREWS	3 14COEE 7	3 14WILSOS	14WIL605	14WILSOS			138 27141 11SHREWS 138	161 27553 14WILSOS 161	27553 14WILSOS 161			0 BDAVIDSO 500	6 10NEWIVES O				12 11SMITH					3 14COLE 7	13 14WILSOS	TANTES CO
		138 27150	345	161	200	161	161 27553	161	161	3 138 27141			161 2755		3 138 27152		345	161	161	34.5			500 18468	138	138	138	161		191	345	138	138	3 138 27100 E 138 27141	345	161	161	191	101				161			200	L 138 26886	9 5	191	138		191	138	138	138		197	197
	S LIGH RVK	1 11BONNIE	1 14WILSO7	B 11GR RV	BBAD	11GR	110k	11GR		1 11BONNIE			8 11GR RV		1 11BONNIE		1 14WILSO7	18 11GR RV	B LIGR RV	1 14871.90	1 14WILSO		8 SPHIPP B	S 10NEWIVE	S TONEWIVE	9 11CLVRPR	11GR	18 11GR RV	SO 14HENDRS	1 11SMITH	9 11HARDBG	S 11GR RVR	9 IIMAKDEG			11GR	28 11GR RV	1198		1 11BONNI	28 11GR RV	18 11GR RV				SS LONEWTVL	SS IONEWIVE				60 14HENDES					28 11GK KV	116
	C:Open 27039	C:Open 27061	C:Open 27561	C:Open 27028	C:Open 11101	C:Open 27028			C:Open 27028	C:Open 27061	Base Case	Base Case	C:Open 27028		C:Open 27061		C:Open 27561		C:Open 27028 11GR RV	C.Open 27561 14WILSO7	C:Open 27561 14WILSO7 345		C:Open 18018	C:Open 26855		C:Open 27079	C:Open 27028	C:Open 27028	C:Open 27560				C:Open 27099	C:Open 27561	C:Open 27028	C:Open 27028	C:Open 27028	Rade Cade	Base Case	C:Open 27061 11BONNIE	C:Open 27028 11GR RV	C:Open 27028 11GR			C:Open 18425	C:Open 26855	C:Open 26855	C:Open 27028	C:Open 27095	C:Open 27012	C:Open 27560	C:Open 27095	C:Open 27099		C:Open 27561	C:Open 27028	C:Oben 270
	138				ET 161 1			161						1 170 T	0.69		VW 138 1	138	RVR 138 1	1 951 U.S 1111 130 1			SVOLUNTE 161 1	SVOLUNIE SUU I	10NEWTVL69.0 1	20BLIT C 161 1		138	C 138 1	138	н 138 1	138	11SMITH 345 1	14WILSOS 161 1	7 345 1	11CLVRPR, 138 1		1 191 3	VR 138 1	20STEPHN69.0 1			H 138 1		50 500 1	10NEWTVL69.0 2		RVR 138 1			OVW 138 1	TR 138 1		~	14WILGOS 161 1		3 7 345 1
	27126 110HIO	27012 11SMITH 345	27553 14WILSO5 161	27079 11CLVRPR	18040 SSANTERT	27563 14COLE 7		27552 14COLE 5	27564 14NATALS	29571 20STEP	27095 11GR R	27095 11GR R	27564 14NATALS 161	27142 ILSMITH	29227 ZOBONN		26879 10GRNDVW	1108		27024 14COTE				18468 BVOLUN					27126 110HIO C		27142 11SMITH		27012 11SMIT				26857 10NEW	27552 14COLE 5	27095 11GR RVR	29571 20STE	27564 14NAT	27564 14NATALS	27142 11SMITH		18430 SDAVIDSO	26886 10NEW	26886 10NEWTVL	27095 11GR 1	110H		26879 10GRNDVW	27142 11SMITH	27012 119MITH	27240 11LEI	27553 14WIL	27079 11CLVRPR	27563 14COLE 7
3	138	24.5	161	138	161	345	138	161	E 5 161 27	969.0	161	161	191		138		138	161	161	130	161		200	900		161	161	191	138	138	345	138	345	191	345	138	138	161	161	169.0	161	191 9	345	ç	200		138	RV 161	RVR 138		138	345	345	138	161	138	345
4	395 11GR RVR	DOG 11HARDN	27028 11GR RV	-	'n	н	н	-	-	-	-	-		27012 IISMITH		•	-	-		0/9 LICLORPR					, ,	-	-	н	27095 11GR RVR		_	-		27109 11LEITCH		-	-	26857 10NEWTVL	-	116	552 14COLE 5	•	-	27006 11HAKDN	w	_	_	1198				- '			1028 11GR RV	_	1561 14WILSO7
770.7 97676	0.74073 27095 1	-0.32916 27006 1	-0.42013 27028 1	-0.16831 26855	11	-0.56709 27	0.22051 26	0.35634 26	-0.25941 27	-0.25368 27	27	72	0.25941.27	ñ	0.32160 27		0.13223 26	0.77495 27028	0.77429 27028	61012 18585.0	0.41730 26		-0.35537 18	0.75412 18464			0.77495 27028	0.77429 27	0.75817 27	0.59587 27079	-0.32916.27012	0.74073 27095	-0.32916 27006	-0.31945 27109		-0.16831 26		0.35634 26	7 6	-0.25368 27	-0.25941 27552	0,25941,27558		R .	0,60927 18422	0.61371 26855	0.61371 26855	0.77495 27028	0.75817.27	0.59587 27079	-0.42491 26851	-0.32916 27012	0.74073 27095	-0.31945 27109	-0.42013 27028	-0.16831.26855	-0,56709 27561
	0.05921	-0.10964	-0.52632	0.12747	-0.02495 -	0.56327	-0.20683	-0.37354	0.23665	0.03286	0.09335	0.09300	-0.23665	- 0.09290 -	0.02550		0.04491	0.04038	0.04034	-0.02560	0.16759		0.02355	0.05323	0.02175	-0.02226	0.17039	0.17025	0.05839	-0.07723	-0.10573	0.05705	-0.10573	0.02287	0.55992	0.11881	-0,20178	-0.36846	0.09616	0.03222	0,22095	-0.22095	-0.08868 -	-0.08868 -	0.02352	0.02048	0.02048	0.16524	0.06048	0.05461	-0.07266	-0.11046	0.05909	0.02334	-0.52691	0.12733	0.56276
	183.6	187.0	463.4	464.0 •	466.1 *	493.6	531.2 •	548.1 *	632.9	663.4	664.2	8.699	671.9 +	698.4	712.2		177.5	193.9 *	197.2	320.4	704.5 *		-3464.5 *	-1627.0 •	180.2 +	31.0 8	46.0 4	46.7 +	120.5	163.6 R	189.7	190.6	193.9	256.5 +	496.5	4 6.764	544.5 *	\$55.7 *	6.44.9	676.6	• 6.77.9	* 7.917	731.7	736.7	-4275.6 *	-597.8 *	-191.4	47.4	116.3	150.2	173.9 R	181.6 *	184.0	251.4 *	462.9 *	464.6 *	4 0.404
0.00	750.0	750.0	750.0	750.0	150.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0				750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
a .	87.	8 7.	87. 87.	92.	82	7.8	87	er.	-7B	98.	78	7.8	PF.	E. 1	E. E.	•	89	88	89.	8, 1	a 6		NB.	e !	2, 2	. E	2	NB.	2 , !	9,0	e e v	82	BN.	2 1	a a	NB.	EX.	8º.	8, E	2, 2	N.	NB.	NB NB	ev	. 88	es.	as.	88,	65, 6	8,68	85	88	88	e, e	. 85	es	. 6
arone_1	GROUP 7B	GROUP 7B	GROUP_78	GROUP 7B	GROUP 78	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP 7B	GROUP_7B	a lange	GROUP_BB	GROUP 8B	GROUP_6B	GROUP_8B	GROUP BB	-	GROUP NB	GROUP_NE	GROUP_NB	GROUP NE	GROUP_NE	GROUP_NE	GROUP_NE	GROUP_NB	GROUP NE	GROUP NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP NB	GROUP NB	GROUP_NB	GROUP NB	EN TUCKE	GROUP NE	GROUP_NB	GROUP_NB	GROUP_NB	GROUP SB	GROUPSB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	GROUP	GROUP	GROUP_SB	GROUP_SB	GROUP	GROUP SB	as direct
UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	64.3	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45		UNITZ_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNITZ PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNIT2 PHC45	UNIT2 PHC45	UNIT2_PHC45	UNIT2_PHC45	UNITZ_PHC45	UNITZ PHC45	UNITZ_PHC45	UNITZ_PHC45	UNITZ_PHC45	UNIT2_PHC45	UNITZ PHC45	UNIT2 PHC45	INITIO PHC45

Osser, 2004 WINTER PEAK ECAR BASE CASE WASPEL W. 1500 MIN SPUT BETWEEN WILSON 345 PARADISE 161 LF Casel, WASPEL WIS PHIC THRIC THREE TO SENSYST! PHC. BAD: CONT. PHC. CONT. PHC. EXCL. PHC. EXC

nessasi									_	_
8				9.00	85.5	5.384	1.684	100.1	1.02	
Politice.	-83.9		21.7			-207.0			9	
ntilese	46.3	123.5	9.4			-114.6		;	2 2 3	
, ama	-0.23755	0.13710	0,01851			-0.13710			0.01272	
198	-242.2	334.3	51.8	132.2	132.2	-334.6	-307.3	-306.0	8.	
3		184.5				٠.	₹.	۲.	9.	
Presita	-37	184	30	70.2	6.69	-175	-242.4	-240	49.6	
Nech	1	_				-			-	
	C:Open 27028 11GR RV 161 27553 14WILBOS 161 1	C:Open 27026 11GR RV 161 27553 14WILSOS 161 1	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1.			C:Open 27028 11GR RV 161 27553 14WILSOS 161 1			C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	
	3 14WIL	3 14WIL	11 115HR			3 14WIL			32 11W L	
tingency	161 275	161 275	138 271			161 275			138 271	
Oan	1GR RV	1GR RV	1 BONNIE			LIGR RV			LIBONNIE	
	27028 1	27028 3	27061 1	986	age	27028 1	386	age	1 27061	
	C:Open	0:0	C:Open	Bage Case	Base Case	C:Oper	Base Case	Base Case	C:Oper	
	1 19	1 19	1 0 1	38 2	138 1	1 191	138 1	145 1	1.0.	
	201.6	NATALS 1	STEPHN69	GR RVR 1	GR RVR 1	NATALS 1	SMITH 1	SMITH 3	BONNIE	
- Course	27552 14	27564 14	29571 20	27095 11	27095 11	27564 14	27142 11	27012 11	29227 20	
	17.161	191 2	TRW69.0.	RV 161	RV 161	LMS 161	TH 345	DN 345	NIE 138	
	MANOT LS	14 COL	05 11R V	28 11GR	28 11GR	58 14SKI	12 11SMI	06 11HAR	61 11BON	
	0 35534 35857 30NPWTVF 167 37552 14COLE 5 161 1	- 25041 27542 14COTR 5 161 27564 14NATALS 161 1	575 APE	370	27028 11GR RV 161 27095 11GR RVR 138 1	5941 275	27012 11SMITH 345 27142 11SMITH 138 1	270	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0 1	
		•			. 0	12 0.2	- 61	. 63		
	27.5	20.00		0.093	0.09290 -	-0.2360	-0.093	-6.09343	0.02519	
Ber				0.199	670.5	673.7	694.5	699.2	720.9 *	
192						750.0	750.0	750.0	0.057	
	Z C	3, 6	n, 6	3, 5	3, 8	. 85	SB SB	SB	ES.	
11.4		decor.	a troub	anoab	GROUP SB	GROUP	GROUP	GROUP	GROUP	
	7.20	NATZ_PHC45	UNITZ PHC45	TO DUCAS	UNITZ PHC45	T2 PRC45	T2 PHC45	UNIT2 PHC45	UNIT2_PHC45	
		ž	5		Š	N	5	N	IND	_

Scenario 4

Case: 2004 SUMMER PEAK ECAR BASE CASE G61P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500 LF Case; G61P00_S: Sav; MON; PHC.mon; SUBSYST: PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

FCITIC MULTIPLE TRANSFER REPORT: G61P00 S+UNIT1 PHC45.TRA HUST Title: "HUST 3.20 "" NED, JAN 10 2001 19:44 "" Title: 2004 SUPPORT PEAK EAK BASE CASE Title: 2004 SUPPORT PEAK EAK BASE CASE MONATOR File: C.NPV-USERS/NOBON/PHC.con CONTINGENCY File: C.NPV-USERS/NOBON/PHC.cub Exclude File: none

12.294	4.11%	7.784	1.234	1.744	1.744	_	14.65	16.181	4.47	37.041	21.794	4.634	7.714	26.241	25.514	20.171	7.914	2.164	1.74%	1.74	0.134	0.69	106	7.991	0.584	1.741	1.74	23.718	12.841	3.641	12.05\$	14.181	1.764	12.184	777.	767	:	12.54	17.724	3.821	9.224	1		:	23.731	12.901	3.741	52,081	22.60	_	13.554	
378.6	530.6	145.9	-365.9	1731.9			172.3	-179.5	531.7	67.6	-140.4	145.9	222.0	44.0	43.4	-50,6			1731.9		403.7	57.1	6 05 2	145.8	404.9	1731.9		179 8	378.6	530.0	-70.8	145.9	-365.9	25.7	-106.4	6.16/1		377.6	155.2	530.3	145.9	-366.2	1731.9		177.2	377.0	530.1	-52.8	6.69	145.9	-52.3	
3.99.5	532.9	137.9	-360.5	1012.1			181.7	-209.4	532.9	60.5	-114.9	137.9	183.2	20.6	20.3	-2.3			1012.1		399.5	33.1	0	137.9	399.5	1012.1			399.5	532.9	-73.2	137.9	-360.5	14.8		1012.1		399.5	168.0	532.9	137.9	-360.5	1012.1		193.5	399.5	532.9	.54.8	-73.2	-148.0	5.09-	1.50-
0.01120	0.00677	0.02713	-0.01120	1.00000			0.01307	-0.05543	0.00380	0.03990	-0.08613	0.02037	0.07868	0.04657	0.04563	-0,08713			1.00000		0.00581	0.03263		0.00374	0.00837	1.00000			0.00628	0.01288	0.01295	0.04075	-0.01288	0.02554	-0.03398	1.00000		0.01253	0,02618	0.00679	0.03027	-0,01253	1.00000		0.00750	0.01416	0.00724	0.05645	0.02955	0.01051	0.03471	0.03344
450.3	748.4	201.5	-461.0	1731.9	1731.9		205.4	-334.7	748.4	83.8	-175.7	201.5	287.6	7.4.7	74.7	- 96.5	83.8	-175.7	1731.9	1731.9	450.3	83.5	;	748.4	450.3	1731.9	1731.9		265.7	450.3	1.95.1	201.5	-461.0	143.3	-114.2	1731.9	1731.9	450.3	189.7	748.4	201.5	-461.0	1731.9	1731.9	265.7	450.3	748.4	-84.7	-95.1	-279.9	201 5	4.40
489.8	757.9	191.6	-450.8	1012.1	1012.1		220.1	-357.3	6.757	74.2	•	191.6	245.0	35.0	34.8	-41.2	60.5	-114.9	1012.1	1012.1	433.9	6.05		757.9	633.6	1012.1	1012.1		312.6	489.B	6.86-	191.6	-450.8	120.1	-94.9	1012.1	1012.1	489.8	202.9	757.9	191.6	-450.8	1012.1	1012.1	312.6	489.8	6.757	-86.9	6.86~	-284.0	191.6	-100 7
C.Oben 18449 BWILSON 500 18450 SWILSNIN 161 1	CONTRACT BUXNOOD COR 18411 ACORDOVA 500 1	161 19117 SFOUNTAI	C. Onen 1849 AWILSON SOU 18450 SWILSNIN 161 1	05BLDBGZ 138 23197 05PHILO			C:Open 18407 BWEAKLEY 500 18422 8JVILLE 500 1	C:Open 96150 7MCCRED 345 96162 7THOMHL 345 1	BHAYWOOD	GITTERIE 161	BLAND 345 96142 7FRANKS 345 1	SCHALLER 161 19117 SPOUNTAI	100000	Wiggsow coole tot windsom		RIVMIN 1 138 31933		Date Care	C.Onen 11315 STAMBY 100 11316 STATESVL 100 2		Ciopen 18430 BDAVIDSO 500 18432 BMAURY 500 1	GUTHRIE 161 31239 MOREAU 161		BHAYHOOD 500 18413 BCORDOVA 500	C:Open 18885 SGALLAT2 161 19117 SFOUNTAL 161 1	SET NO			BWILSON 500 18450 SWILSNIN	BWILSON	C:Open 18017 8HAYWOOD 500 18413 8COKDOVA 500 1	161 19117 SPOUNTAI	AWILSON 500 18450	OBGRNTWN	C:Open 27101 11HIGBY 138 27226 11HIGB B69.0.1	C:Open 23120 05CALDWE 138 23176 05MUSKNG 138 1	Base Case	1 131 MTMD TIME GEAC AND MARKET STATES	SHILLSON SOUTHER SET TOWNSON TO SELECT 138	S00 18413 BCORDOVA	SGALLATZ 161 19117 SPOUNTAI	BWILSON	OSAPPI,EC	Base Case		C:Open 18449 BNILSON 500 18450 SMILSNIN 191 I		11BRWN N	27002	C:Open 27105 11KENTON 138 29566 209PURLK 138 1	SFOUNTAI	t act Moderate terro one sentence .
1 151 T JOSEPH CONTRACT OF 151 1000 CORES CONTRACT OF 151 1	BERRY TELETIO	0.28802 18409 8JACKSON SUG 18410	TOTAL COURT TOT TOTAL TOTAL TOTAL COLOR CORRES	TOTAL TOTAL TOTAL SERVICE TOTAL TOTA	ACANT ADDRANTS CON 18428		-0.06516 18610 5J VIL 3 161 18997 SCAMON T 161 1	0 18164 11221 MORERLY 161 96354	CLASE CON MONACKE COLOR CONCE	OWERE THE PROPERTY OF THE PROPERTY OF	MOTOR OFFICE TAT MORENO TOTAL TATAL MOTOR CONTRACTOR OFFICE TATAL MOTOR CONTRACTOR OFFICE TATAL MOTOR CONTRACTOR OFFICE TATAL	MOTORS COLLE LET THE TATE OF THE SECOND COLUMN TO T	0.34170 18711 5GALLATI 161 19154	0,22078 31408 OVERTON 345 31409 OVERION		0.70816 31221 MOBERLY 161 31222 MOBERLY	-0.65393 31024 MAKIES 138 96292 SIMMILES	SIZZY MORENO LOL SIZZYO MORENO	MODELS CALL LOI STRUCK COLOR COLOR COLOR	0.00000 IM44 BEARANDIS SUC 19428	0 06585 18698 SDAVSN 2 161 19070	0.29106 30026 APCH FLT 161 30027		0.28802 18409 BUACKSON 500 18410	0.34170 18711 SGALLATI 161 19154	0.08585 18698 SDAVSN 2 161 19070	0.00000 18427 SPARADIB SOU IB428 SMONIGOM SOU 1		0.18190 18720	0.13791 18698 SDAVSN 2 161 19070	0,28802 18409 8JACKSON 500 18410	0.07226 27023 11DELVIN 161 27045	0.34170 18711 SGALLATI	-0,13791 18720 SRADNOK 161 19070	0.16675 23165 13DIXDAM69.0 27295	0.00000 18427 8PARADIS 500 18428	18427		0.13791 18698 SDAVSN 2 161 19070	0.07024 22570 05SPORN	0.28802 18409 8JACKSON 500 18410 SUACKSON	0.34170 18/11 SCALLAIL LEL LELLA SERVISAL LOL	-0.13/91 18/20 SKADNOK 191 19/00 SKAD A CO.	18427 8PARADIS 500 18428 BMONTGOM 500		0.18190 18720 SRADNOR 161 18737	0,13791 18698 SDAVSN 2 161 19070 SGRASL T	0.28802 18409 8JACKSON 500	0.08991 29496 20PITISH 161 29602 2011NEN	0.0/226 2/023 LIDBLUIN 101 2/2566	0.34170 18711 SGALLATI 161 19154	THE PERSON AND PARTY OF THE PE
111111111111111111111111111111111111111	0.02114	0.02835	0.03411	1 00000	0000		0.02053	-0.04209	60710.0	96750.0	0.05419	0.08424	0.02564	0.08636	0.07907	0.07861	-0.09969	0,03990	- 61980.0-	1.05000	20000	0.04424		0.02629	0.03467	0.02533	1.00000	999	0.02147	0.02440	0.02370	0.02034	0.05129	-0.02440	0.05421	1.00000	1.00000					0.03798	-0.02262	1,00000						0.03382		
		-336.7	1.767	4.134	110.617	o .	-718.2 *	- 5.28 6	9.000	5.862-	177.6	296.3	388.6	493.0	501.8	\$07.6	554.3	585.6	706.5	719.8	0.077	736.0		-363.1	287.4	649.8 *	719.8	B . A . 4	-2183.9 *	-1615.7 •	-402.7	185.8 R	194.2 *	417.0	629.3		719.8		•		-375.2	262.3 *		8.617	1	-2175.8 *	-1589.1 *	-386.8	34.7	111.7 R	202.0	7.677
	0.05/	750.0	0.06/	750.0	0.007	0.067	750.0	0.021	0.067	0.047	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.06/	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	2,207	750.0
1	ALL	ALL_B	Apr.	ALL	Arr.	Arr	at 011000	ar mono	GROUP_IB	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 1B	GROUP_IB	GROUP 18	1000	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_ZB	GROUP_2B	SE GUORE	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B		GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP SB	GROUP 5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP 58	20000
From	UNITY PHC45	UNIT1 PHC45	UNITI PHC45	UNITI_PHC45	ONITI PHEGS	ONITI_PHC45	H DUCAE	UNIT_FECTS	ONITE PROFES	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC4S	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45		UNIT1 PHC45	UNIT1_PHC4S	UNITY PHC45	UNIT1_PHC45	UNITI_PHC45	PHOTO LANGE	UNIT: PRC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45		UNIT1 PRC45	UNIT1_PHC45	UNIT! PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1 PHC45	UNITA PHC45	UNIT1 PHC45	UNITY PHC45	UNIT1_PHC45	UNIT1 PHC45	mina, bunks

Case; 2014 SUMMER PEAK ECAR BASE CASE G61P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500 LF Case; G61P00_S,sav; MON; PHC,mon; SUBSYST; PHC,sub; CONT; PHC,con; EXCL; PHC.EXC

Contract of the Contract of th

Charles

92.2	2.6	-366.3	e.	-111.1		15.5 1.05- 1.051	6.661-		0 1171	6.4674		160.8		137.9 145.7 3.744				399.5 404.3 Z.ELE	-104.2	-104.3	1747.1 1731.9 1.748	;	-88.8 -112.3 0.44	183.7	380.6	147.1	532,9 529,1 3.40%		5.8-	-162.0	162.1	360.5 -365.4 1.57%	145.0 30.364	-211.8	73.4	212.0	1.74%			530.5		1731.9			532,9 530,9 4,75%	-74.2	1012.1 1731.9 1.74%	
			-0.03296	•		·			;	1,00000 10.				•	T.00000				-0.03992				-0.03260					1- 500E0 0		7		-0.011103	90,30	7			1.00000 10					10.0000				0.010/0	-	
142.0	45.7	-461.0	-58.7	-215.7	-59.0	0.65	-279.9	-213.1	- 83.7	1731.9	1731.9	205.4	748.4	201.5	1731.9		748.4	450.3	-154.0	-154.1	1731.9	1731.9	-217.0	265.7	450.3	175.5	748.4	-176.0	201.3	-223.5	223.6	-461.0	175.5	-245.9	148.4	346.2	1731.9	1731.9	450.3	748.4	201.5	-461.0	1731.9		748.4	450.3	1731.9	
158.8	-5.1	-450.8	0.7	-175.8	-12.5	e. 8	-291.7	-199.0	26.1	1012.1	1012.1	238.4	757.9	191.6	1012.1		9.757	433.9	174.4	-112.6	1012.1	1012.1	-193,5	312.6	489.8	212.6	4.757	-176.9	132 6	-175.4	175.4	-450.8	162.3	-218.8	28.5	224.5	1012.1	1012.1	489.8	757.9	191.6	-450.8	1012.1		757.9	433.9	10101	
C:Open 29386 20JKSMIT 161 29500 20POWELL 161 1	C:Open 23051 OSFULLER 138 23173 05MILLBR 138 1		138 23173	C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	05FULLER 138 23173 05MILLBR 138	138 29566 20SPURLK	11HIGBY 138	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	C:Open 23109 05BLDBGZ 138 23175 05MILLWO 138 1	Base Case	C.Open 18407 SHEAKLEY 500 18408 SHEAKLEY 161 1	BHAYWOOD 500 18413 BCORDOVA 500		C:Open 23110 05BLMF Z 138 23150 05FULTON 138 1		C: Open 18017 SHAYWOOD 500 18413 SCORDOVA 500 1	BDAVIDSO 500 18432 BMAURY	-	C.Open 11192 ALBEMARI 100 11291 GAKBORO 100 I	05PHILO 138		C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	7.00 1849 BHILSON 500 18450 SWILSNIN 161 1	S00 18450 SWILSNIN	138 27617	500 18413 8CORDOVA	LOABBRWN	C:Open 18885 5GALLAT2 161 19117 5FOUNTAI 161 1	3	10CULLEY 138	200		0	OBAMO 345 Zeles Osbanico	C:Open 26861 10ASBRRN 458 2781 118625	08TH EST 138 26151	Вкес Слес	C:Open 18449 BWILSON 500 18450 SWILSNIN 161 1		5GALLAT2 161 19117 SPOUNTAI 161	BWILSON 500 18450 SWILSNTN	C:Open 23109 05BLDBGZ 13B 23197 05PHILO 138 1	Erec Cree	BCORDOVA	8	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	- and what idea of 252 Res 2 award of the
1 181 4RT INI 27045 181 4RT RILL AFORT A	-0.77645 24067 05GRAYSB69.0 29198 20ARGTM 69.0 1	SRADNOR 161 19070		11084	0.48488 24084 0	DSFRANKN69.0	0.82129 27105 11KENTON 138 29566 20SPURLK 138 1	-0.29190 27057 11BKR LN 138 27064 11BRWN N 138 1	1.00000 29196 20ARGTM 138 29198 20ARGTM 69.0 1	-	18427 BPARADIS 500 18428 8MONTGOM 500 1	1 19 T NGMED 5 TOTE 1 1 F 9 T 5 CAMPY T 161 1	8JACKSON 500 18410	•	BPARADIS 500 18428 SMONTGOM 500	18427 8PARADIS 500 18428 8MONTGOM 500 1	0.28802 18409 8JACKSON 500 18410 5JACKSON 161 1	SDAVSN 2 161	BADIN 100 11192 ALBEMARL	ALBEMARL 100 11291 OAKBORO	0.47727 11192 ALBEMARE 100 11291 CARHORO 100 1		11172 SROBBINS		SGRASI, T	10CULLEY 138 26879 10GRNDVW	BJACKSON 500 18410	10NEWTVL 138 26879	SGALLATI 161 19154 SHARTSVI	080KLND 138 27871 16PETE	-0.35118 27560 14HENDRS 161 27617 14HENDR4 138 1	161 19070 5GRABL T	10CULLSY 138 26879 10GRNDVW	10NEWTVD 161 27552 14COLE 5		0.39931 26855 10NEWTVL 138 26857 10NEWTVL 161 1	SPARADIS 500 18428 SMONTGOM	18427 BPARADIS	A 10070 CORNER 2 161 10070 GGBAST. T 161 1	0.13791 18698 SDAVSN Z 161 19070 SCREED Z 161 1	SGALLATI 161 19154 SHARTSVI		SPARADIS 500 18428 SMONTGOM 500	18427 SPARADIS 500 18428 SMONTGOM 500 1	0 28802 18409 BJACKSON 500 18410 5JACKSON 161 1	SDAVSN 2 161 19070 SGRASL T 161	BADIN 100 11192 ALBEMARL 100	a contract of the contract of
80120 0-				-0 08845	-0.09336	-0.09336	0.02073		-0.17422	1.00000	1.00000 -	90000	0.02105	0.02326	1.00000	1.00000 -	0.03573	0.03755	-0.10785	-0.05896	-0.05888	1.00000	-0,03260		0.02026	52520	0.02127					0.11240	•	0.25111	-0.04445	0.17601	1 00000	1.00000 -		0.02175	0.04099			1.00000 -	0.01473	0.03600	-0.09369	
275 6 10	* 1 032	1.605	1.017	451.5	497.3 *	543.0 •	565.6 R	604.6 *	630.6	719.8 *	719.8		* 5.659.	428.3 *	719.8 *	719.8	* 2.736	438.2	514.6 *	101.7 +	705.2 *	119.8	721.9		-2314.0 •	- 1695.9 F	448.8	-12.3	198.4 *	360.9		428.7 *	442.1	475.8	610.4 *	681.6	707.4	719.8		-1812.6 *	-375.1	467 B *	719.8 *	719.8				
	750.0	0.067	0.00.0	0.007	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	250.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	7 60.0	750.0	750.0		0.067	750.0	
C O'LL	droup en	GROUP_SB	excons an	GROUP SE	arono	GROUP SB	GROUP 5B	GROUP 5B	GROUP_SB	GROUP_SB	GROUP_SB		GROUP EB	GROUP 6B	GROUP_6B	GROUP_6B	ar allogo	GROUP 7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP 7B	ı	GROUP_8B	GROUP_BB	GROUP_BB	GROUP BB	GROUP_8B	GROUP BB	GROUP_88	GROUP_6B	GROUP BB	GROUP BB	GROUPEB	GROUP_8B	GROUP_8B	GROUP, 8B		GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP_NB	;	GROUP_SB	ac_10000	
The second secon	UNITI PHC45	UNITI_PHC45	UNITI PROES	UNIII PRC45	MITT DECAS	UNITA PRC45	UNIT1 PHC45	UNIT1 PHC45	UNIT: PHC45	UNITI PHC45	UNIT1_PHC45		UNITI_PHC45	UNIT! PHC45	UNIT1_PHC45	UNIT1_PHC45	DICAG	UNIT: PHC45	UNITY PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI PHC45	1	UNITI_PHC45	UNIT1_PHC45	UNIT: PHC45	UNIT: PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITA PHC45	UNITI PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	ı	UNIT1_PHC45	UNITI PHC45	UNIT1 PHC45	UNIT PHC45	UNITI_PHC45		UNIT1_PHC45	UNITE PRC45	

Case: 2004 WINTER PEAK ECAR BASE CASE
G6IP00_W: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case: G6IP00_W:aar, MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

G61P00 W+UNIT1 FCITC MULTIPLE TRANSFER REPORT:

MUST TILLS: ... MUST 3.20 ... THU, JAN 11 2001 111.15 ...
TILLS: 2004 HANNER BEAK SCARS
TILLS: 2004 HANNER BEAK SCARS
TILLS: GILPO, W. 1500 MW SPLIT BETWERN GREN RIV 161 L PARADJSE 500
MONITOR File: C:\BV-USERS\W0800Y\PHC.con
Submyrtem File: C:\BV-USERS\W0800Y\PHC.con
Submyrtem File: O:\BV-USERS\W0800Y\PHC.eub

* OT	12.364	12.081	4.725	1.00.1	198.1	10.80%	10.02%	15.04	18.24	4.7.01	207	8.554	40.60%	12.17	30.424	10.34	3.08%	1.864	1.864	3.074	11.904	13.464	6.934	1.864	1.864	12.151	13.811	119.61	477.5	13,714	4.254	960.0	1.86%	1.864		14.53%	15.161	21.854	3.094	3.778	1.67	1.864		12.32\$	15.09%	14.98%	31.06%	38.454	7.424	24.854
Philipson.	1 6.997			1/30.5							, L		-52.2 4	216.7 1	66.2 3			1730.5		-92.3	767.6 1	••		1730.5		251.0 1		1197.5			0.777	34.6	32.3				1197.1		2.002			1730.5		249.4						-113.2
Base Section	793.9			1012.7			•			•	1.22.1	835.1	-25.4	188.6	38.8			1012.7		-26.7	793.9			1012.7		259.2	793.9		237.6	72.2	835.1	-16.6	-15.4	•			1264.6	37.5	237.6	835.1	159.7	1012.7		2.69.2	793.9	1264.6	166.4	-141.4	-164.4	-117.1
int.	0.02578			1.00000		0.01726	0.09374	.0.05253	-0.02282	0.02282	0.04087	0.19658	96080.0-	0.08078	0.06358			1.00000		-0.09107	0.02290	0.11761	0.16891	1.00000		00000	0.03390	0.15838	0.02166	0.01372	0.13406	0.07201	0.06708	1.0000		0.03410	0.18162	0.02011	0.01812	.0.13071	0.02550	1,00000		0.00773	0.04886	0.17568	-0.06282	0.07872	0.01748	90000
A	1132.6				1730.5	132.6					75.0	•	·		6.08	75.0	75.0	1730.5	1730.5	-143.0 -	3, 55,11	1724.0	•	1730.5	1730.5		360.0		•	141.8	- 4.1671	6.99	6.99	1730.5	6.05/1	1132.6	1724.0	2.7.2	239.9	1731.4	210.8	1730.5	1730.5	360.0	1132.6	1724.0	197.6	-164.2	-280,0	
37. 38398	1214.2				1012.7	1214.2	1810.6	-354.7			88 P	6.78		259.4	49.5	52.1	51.0	38.8		-36.6	. 41.			1012.7	1012.7		387.8	1810.6	239.9	141.2	1631.9	-32.0	-32.0	1012.7	1012.7	1214.2	1810.6	82.0	7. 84.	1631.9	194.4	1012.7	1012.7	387.B	1214.2	1810.6	1.99.1	-168.2	-281.7	
14															66																				٠	٠.														
	1 OS STALLAND B GOOD BAGE BVOLUNTS 500 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1		C:Open 23132 05E LIMA 138 23202 05ROCKHI 138 1	Вабе Саве	C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	500 18468	C:Open 96150 7MCCRED 345 96162 7THOMHL 345 1	FRKN 138 30650	138 30650	161 31222	MOBERLY 161 31222	C:Open 18425 SCUMBERL SUU 1843U SUAVIDSO SUU I	C:Open Steue Kivmin I 150 Sigo, modern 1 151 1	OUTHRIE	Base Cade	Base Case		C:Open 30119 BENION 138 30/80 INA 138 1	C:Open 30532 ELDON 161 96168 5BARNET 161 1	t to a trimeta source of the trimeta source		C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 1	C:Open 23132 05E LIMA 138 23202 05ROCKHI 138 1	Base Case		C:Open 18449 BWILSON 500 18450 SWILSNIN 161 1	C:Open 18018 SPRIPP H 500 18468 SVOLUNIE 500 L	CiOpen 1843/ Shenr I Sou tolde Stockers Stockers	뜶	BCUMBERL 500 18430	C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 1	27180	C:Open 23136 05BAMSTD 138 23164 05MALVER 138 1	Base Case	C.Open 18018 SPHIPP B 500 18468 BVOLUNTE 500 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	05RICHCT69.0 24690 05NWHTH 69.0	C:Open 24686 05RICHCT69.0 24689 05TREATY59.0 1	C:Open 18019 BBUDDIVA 500 12553 USBROADS 500 1	C:Open 18425 SCUMBERS 505 18435 SENTENCE TO C:Open 20617 DSNPROCT 138 1	05E LIMA 138 23193 05NWOODC 138		Manual Control of the	C:Open 18449 8WILSON 500 18450 SWILSNIN 161 1	SOO 18468 RVOLUNTE	161	C:Open 27110 11LR TAP 138 29387 20JKBMIT 138'1	C.Onen 27105 11KENTON 138 29566 20SPURLK 138 2	
	TOTAL DESCRIPTION STREET, TOTAL DESCRIPTION OF THE PERSON	-0.35537 18468 BVOLUNIE SUU 18469 SVOLUNIE 191 1 0.75412 18464 BBULL RU 500 18468 BVOLUNIE 500 1	SJVILLE SOO 18430 SDAVIDSO 500	0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1	18427 BPARADIS 500 18428 BMONTGOM 500 1	1 191 31WINTS 500 18469 SVOLUNTS 161 1	88ULL RU 500 19468	MOBERLY 161 96354	FRKN 138 30650	0.95083 30593 FRKN 138 30650 GRAY SUM 138 1	0.71268 31221 MOBERLY 161 31272 MOBERLY 69.0 2	MOBERLY 161	STVILLE 500 18430 SDAVIDSO	-0.65304 31024 MARIBS 138 96292 5MARIBS 161 1	161 31240 MOREAU	MOBERLY 161 31222 MOBERLY	MOBERLY 161 31222	MOREAU 161 31240	0.00000 18427	18427 8PAKALIS 0.43126 30957 LKSIDE 1		BVOLUNTE 500 18469 SVOLUNTE	0.75412 18464 BBULL RU 500 18468 BVOLUNIE 500 I	MONTGOM 18428 AMONTGOM	SPARADIS 500 18428 SMONTGOM					IBLUE L ISI	OG-DETE	Ψ		0.00000 18427 SPARADIS 500 18428 SMONTGOM 500 1		(151 STATIONS GARAT DES STATISMES CALLES FORME	-0.3553/ IB468 BVOLUNIE 300 18468 BVOLUNIE 500 1		05RICHCT69.0 24690	11BLUE L		DESPORM	500 18428 BMONTGOM		SRADNOR 161 18737 SNOLNVLE 161	SVOLUNTE 500 18469 SVOLUNTE	BBULL RU 500 18468 BVOLUNTE		11DEDUIN 161 29215 20811VA	29566 203FURDA
		0.07789	-0.24304	1.00000	1.00000 -	20,000		-0.04047	-0.04452	-0.04452	0.06941	0.0690.0			0.08772	0.04087 -	0.04005 -	0.06358 -	1.00000	1.00000 -			0.14807	-0.29400	1,00000 -		0.02123		0.20434	-0.02166 -	0.02672	-0.23219	0.13908	1.00000	1.00000		0.11069	-0.02941	-0.02941		-0.22099	0.02656	1.00000	T	0.02207	0.11902	0,22893	-0.08382	0.08952	20000
547	orte E.I	-1047.6	413.7 R	117.8	117.8		-754.5	-493.7	-423.7	-423.7	- 193.9	-187.5 +	303.3 R	331.0 *	148.1	7.121	598.4	710.3	717.8 •	720.0		-1150,7 *	-584.9 •	342.0 X	717,8		-1313.1 *	-817.7 *	-423.8 *	0.B	23.1	433.0 K	710.9	717.8 *	717.8		-137.2	163.2 R	180.5 R	405.2 R	455.0 R	617.0 *	717.8		-1263,0 *	. 9.289-	-378.3 *	18.0 R	44.9 R	
er transfer Transfer	32	750.0		750.0	0.027	6	'		750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0				750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	,,,,,	750.0	750.0	750.0	750.0	750.0	
Reporting the first 200 violations per transfer Trueser	22	ALL B	ALL B	ALL B	ALL_B	41040	GROOF IS	ar_iono	GROUP 18	GROUP 18	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 18	GROUP_1B	GROUP_1B	GROUP_1B	at L	GROUP_ZB	GROUP_2B	GROUP_2B	GROUP_ZB		GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	ı	GROUP_48	GROUP 4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 58	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB	
Reporting the fire	Pron	UNIT1_PHC45	UNIT1 PHC45	UNIT1 PHC45	UNIT1_PHC45		UNIT PHC45	INTT1 DUCAS	UNIT1 PHC45	UNIT: PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1 PHC45	UNITA PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45		UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT1 PHC45		UNITA PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC4S	UNIT1_PHC45	UNIT1_PHC45	CATT PROFE	UNITI PHC45		UNIT1_PHC45	UNITI_PHC45	TATAL PACAS	UNIT1 PHC45	UNIT1_PHC45	UNITI_PHC45	UNITL_PHC45	UNITI_PHC45	UNIT1 PHC45	UNIT1 PHC45	UNITY PHC45	UNITY PHC45	UNITY PHC45	

Cose: 2004 WINTER PEAK ECAR BASE CASE
GGIP00_W; 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case: G61P00_W.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

24.851	20.414	28.074	6.834	4.83k	6.34%	6.25%	58.624	4.524	4.404	51 214	2.924	25.914	2.524	17.874	1.864	# 9 B . 1	9.63%	9.364	10.624	1.864		9.80£	8.544	3.65	1.861	1.864		11.974	11.38\$	38.304	18.694	22.684	13.834	28.994	7.65%	7.654	5.674	5.354	1.86%	1.86%		13.50%	4.978	2.96%	1.864	1.864	10.234	9.134	4.284	4.484	1.864	
		-121.9	-106.4	120.0	74.6	74.4	-16.1	-258.3	111 0	0.121-	775.4	-26.4	220.3	-23.2	1730.5		766.8	1192.8	7.087			762.0	1183.3	770.8	1730.5			765.1	1197.0		37.2	-123.9	-12.9	164.8	-167.4	167.4	32.1	119.0	1730.5		,	7.757.7	776.4	229.9	1730.5		763.4	1187.4	-121.9	772.6	1730.5	
-49.5	143.9	-110.3	-103.7	113.8	70.2	6.69	9.4.9	-242.4	-240.7	2.68-	1.1.2	1.4.	183.2	7.6-	1012.7		793.9	1264.6	835.1	1.7701		793.9	1264 .6	6.011-	1012.7			2.652	1264.6	143.3	39.7	-117.7	2	46.3	-106.5	106.5	39.7	6.7.9	1012.7			793.9	835.1	237.6	1012.7		793.9	1264.6	-110.3	835.1	1012.7	
0.01705	-0.03841	-0.06772	-0.01211	0.01786	0.01225	0.01220	-0.02652	-0.03599	-0,03599	-0.06772	0.02652	0.02240	0.06742	-0.02240	1.00000		0.01216	0.06366	-0.20494	T. 00000		0.01535	0.07605	-0.03289	1.00000			0.00427	0.11415	0.02979	-0.01251	-0.03099	-0.02316	-0.14237	-0.10186	0.10186	-0.01251	0.04999	1.00000			0.03050	0.15695	-0.01856	1,00000		01108	0,08420	-0.02785	-0.14746	1.00000	
-71.8	222.9	-216.9	161.0	190.8	132.2	132.2	2.68-	-307.3	-306.0	-216.0	57.4	* 1577T	470.5	5.85-	1730.5	1730.5	1132.6	1724.0	1731.4	1730.5	6.0611	1132.6	1724 0	-216.9	1730.5	1730.5		360.0	1724.0	176.0	60.1	-175.6	-142.1	1731.4	-224.0	224.0	51.8	142.2	1730.5	1730.5		1132.6	1724.0	239.9	1730.5	1730.5		1724.0	-216.9	1731.4	1730.5	1730.5
7.14.7	232.0	-205.3	157.	182.7	124.3	124.2	-13.9	-287.2	-285.5	-184.2	6.7.	6.1587	437.5	-15.3	1012.7	1012.7	1214.2	1810.6	1831.9	1012.7	1017.	1214.2	1810.6	205.3	1012.7	1012.7		387.8	1810.6	188.6	64.0	-161.1	-122.3	1831.9	-156.9	156.9	64.0	100.0	1012.7	1012.7		1214.2	1610.6	248 7	1012.7	1012.7		1214.2	-205.3	1831.9	1012.7	1012.7
C:Open 27113 11LOUDON 138 29202 20AVON 138 1	į,	8BAD CRK 500	C:Open 29432 20MAYSVJ 138 29566 20SPURLK 138 1	29432 20MAYSVJ 138	27028 11GR RV 161 27095 11GR RVR 138	11GR RV	05FULLER 138 23173 05MILLBR 138	27099 11HARDEG 138 27100 11HARDN 138	11HARDBG 138 27100 11HARDN 138	8BAD CRK 500 11102 8JOCASSE 500	OSFULLER 138 23173 OSMILLBR 138	C:Open 18425 BCOMBERL 500 18430 BDAVIDSO 500 1	OSFOLLER ISO 25175 CONTLINE THE STORY OF THE TEXAS	05FULLER 138 23173 05MILLBR 138	C:Open 23134 05E SIDE 138 23181 05NDELPH 138 1	Bage Cheen	C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	8WBNP 1	C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 1	C:Open 23132 05E LIMA 138 23202 05ROCKHI 138 1	Dase Case	C:Open 18018 8PHIPP B 500 18468 BVOLUNTE 500 1	200	C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	138			BWILSON 500 18450 SWILSNIN	Ciopen Isole Schirt B 500 Isses evolunts 500 I	27560 14HENDRS 161 27617 14HENDR4	26855 10NEWTVL 138 26886	26861 10ABBRWN 138 27617 14HENDR4	NOSEIDBO	18425	26879 10GRNDVW	26851 10CULLEY 138	10NEWTVL 138	SPARADIS 161	C:Open 18012 SPARADIS 161 27616 14N.HARS 161 1	Clopen 2313/ OsbASION 138 2324/ Con Extra 138 1		SPHIPP B SOO 18468 SVOLUNTE	C:Open 18457 8WBNP 1 S00 18468 8VOLUNTE 500 1	SCUMBERL 500 18430 SDAVIDSO 500	C:Open 18019 8SULLIVA 500 22553 USBROADF 500 I	TOT STORMED SETS		C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	SBAD CRK 500 11102 8JOCASSE			Dags Cana
6 0.09360 29295 20DAVIS 69.0 29319 20FAYETT69.0 1	0.32399 27034	- 11172	-0.47947 27090	6 0,380%0 2/039 LIPOCKEI 161 2/040 LIPOCK N LBI I	0.77495 27028	0.77429 27028 11GR RV 161 27095	0.77655 24067 05GRAYSB69.0 24077	-0,32916 27012 11SMITH 34S 27142 11SMITH	-0.32916 27006 11HARDN 345 27012	- 11084 SNANTAHA 161 11172	-0.77655 24067 05GRAYSB69.0 29198	0.60927 18422 8JVILLE 500 18430	4 0.48510 24084 05PLTM.049;0 24091 05N HAVNES.0 I	0.48510 24077	0.00000 18427 8PARADIS 500 18428	0 - 18427 8PARADIS 500 18428 BMONTGOM 500 1	1 -0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1		0.60927 18422 8JVILLE 500 18430 8DAVIDSO	0,00000 18427 8PARADIS 500 18428	0 - 18427 SPARADIS 500 18428 BMONTGOM 500 1	3 -0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1	0.75412 18464 8BULL RU 500 18468 BVOLUNTE	11172 SROBBINS 161 18040 SSANTEET	2 0.60927 18422 8JVILLS 500 18430 BDAVIDSO 500 1	. 18427 SPARADIS 500 18428 BMONTGOM		0.18190 18720 SRADNOR 161 18737	9 -0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1	0.75412 18464 8BULL KO 500 18468 -0 42489 26851 10CHILEY 138 26879	0.61371 26855 10NEWIVL 138 26886	-0.40677 26855 10NEWIVL 138 26879	-0.65624 26078 08OKLND 138 27871	0.60927 18422 8JVILLE 500 18430		-0.31212 2/300 INBUNDAS 111 2/01/	0.61371 26855	0.14359 27106 11KNOB C 138 27135	0.14359 27135 11POND C 138 27144 11TIPTOP	0.00000 18427	18427 BPARADIS SOU 18426 BRONIGOR SOU I	5 -0.35537 18468 8VOLUNTE 500 18469 SVOLUNTE 161 1	0.75412 18464 SBULL RU 500 18468 BVOLUNTE	0.60927 18422 8JVILLE 500 18430	-0.01946 27019 11BLUE L 161 29248 20BLIT C 161	0 0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1	TOTAL DEPOSIT OF THE POST OF T	-0.35537 18468 BVOLUNTE 500 18469	0.75412 16464 8BULL RU 500 18468 BVOLUNIE 500	STATES STATES THE STATES SOUTH AND STATES SOUTH OF STATES SOUTH AND STATES	0.00000 18427 BPARADIS 500 18428 8MONTGOM 500	ON MODIFICATIONS REAR AGE OF STANDARD CONT.
0.02766	. '	-0.06772	0.02309	-6.02086	0.02171	0.02169	-0.10519	-0.04530	-0.04530	-0.06772			-0.07154	-0.07154	1.00000	1.00000	0.03661		-0.37916	1.00000	1.00000	. 0,03923	0.08095		-0.21832	1.00000				0.14612	.0.02018	-0.07243		•	0.25107	-0.11232	•				1.00000	0.09505			•	1.0000	7.00.1			CB/20.0-		
105.0 R	125.2 R		168.7	348 1 4	360.7			442.7	452,6	469.3	471.4	499.1 R	P. C. C.	603.8		717.8	-2228.8 *		265.2	717.8 *	717.8	-2080.1 •	-1069.8	353.5 +	460.6 2	717.8		-1378.8	1	-592.7	194	200.2		389.1		597.7	606.7	623.5	637,3		717.8	-85B.4 *			413.2	717.8 *		-1783.5	'	417.6		0.11
750.0 105.0 R 0.02765 0.09360	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.054	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.06/
GROUP 5B	gROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP 5B	GROUP_5B	GROUP_SB	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_TB	GROUP 78		GROUP_8B	GROUP_RB	GROUP_BB	GROUP BE	GROUP 63	GROUP BB	GROUP_BB	GROUP_6B	GROUP_6B	GROUP 8B	GROUP 8B	group_eb	GROUP_BB	GROUP_8B	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP 3B	GKOOKE SE
UNIT1 PHC45 GROUP 5B	UNITL PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC4S	UNITI PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC4S	UNIT1_PHC4S	UNIT1_PHC45	UNITI_PHC45	UNITY_PHC45	UNITI_PHC45	UNITI PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT1 PHC45	UNITIPHC4S	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1 PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45	UNIT1 PHC45	•	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45	UNIT PHEAS	UNIT1 PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	INTT1 PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1 PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W45000S: 1500 MW STLIT BETWEEN WILSON 345 PARADISE THE
T Case: W45000Sasw; MON: PHC.mm; SUBSYST; PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: W45P000S+UNIT1 PHC45.TRA

MUST Title: *** HUST 3.20 *** WED, JAN 10 2001 16:02 *** Title: 2004 SUMMER PERK EDAR CASE (PMC 345 KV TIE OPEN)
Title: 744500005: 1500 MW SPLT BETWEEN WILSON 345 & PARADISE 500
MONITOR File: C:\BV-USERS\WOBODY\PHC.mon
Gubbugerp File: C:\BV-USERS\WOBODY\PHC.con
Suboystem File: C:\BV-USERS\WOBODY\PHC.con

12.29t 4.11t 7.78t 1.23t 1.74t

4.63t 7.714 26.24t 25.51t 7.91t

4.478 37.048 21.798

	ä	•		. •			4 7	• *	'n	2	-	•	กั	ri i			.,		_	-			_			•	n ;	•			_			_		-		_	_	٠.	_				٠.	2	. 2				-	
PalBasia	378.6	530,6	145.9				172.3	6.671-	67.6	-140.4	145.9	222.0	44.0	43.4	9.06-		1731.9		403.7	57.1	9	145.8	404.9	1731.9			179.8	0.065	-70.8	145.9	-365.9	25.7	-106.4	1731.9		3 777	155.2	530.3	145.9	-366.2	1731.9			377.0	530.1	-52.8	-69.9	-145.8	145.9	-52.3	-112.3	
rathers	3,666	532.9	137.9	5.095	1.7707	į	181.7	P. 602-	60.5	-114.9	137.9	183.2	20.6	20.2	7.		1012.1		399.5	33.1		137.9	399.5	1012.1			193.5	2,645	6.12.	137.9	-360.5	14.8	1.78-	1012.1			168.0	532.9	137.9	-360,5	1012.1			3.99.5	532.9	-54.8	-73.2	-148.0	137.9	5.09	8.88.	
AIIIA	0.01120	0.00677	0.02713	-0.01120	1.00000		0.01307	-0.05543	0.00380	-0.08613	0.02037	0.07868	0.04657	0.04563	-0.08713		1.00000		0.00581	0.03263		0.005/1	0.00837	3.00000			0.00628	0.01288	0.00/10	0.01293	-0.01288	0.02554	86660.0-	1.00000			0.01253	0.00679	0.03027	-0.01253	1.00000			0.00750	0.00724	0.05645	0.02955	0.01051	0.03471	0.03346	-0.08845	
1	450.3	748.4	201.5	-461.0	1731.9		205.4	-334.7	48.4	-175.7	201.5	287.6	74.7	74.7	M 10	0,18	1731.9	1731.9	450.3	83.5	;	748.4	450.3	1731.9	1731.9		265.7	450.3	748 4	1.46-	201.9	143.3	-114.2	1731.9	1731.9	;	450.3	748.4	201.5	-461.0	1731,9	1731.9		265.7	748 4	-84.7	-95.1	-279.9	201.5	-94.4	-217.0	
75.44B.	489.8	757.9	191.6	450.8	1012.1		220.1	-357.3	6.757	-150.8	191.6	245.0	35.0	34.8	-41.2	6.09	1012.1	1012.1	433.9	6.02	,	757.9	433 9	1012.1	1012.1		312.6	489.8	757.9	98.9	191.6		6.46-	1012.1	1012.1		469.8	202.9	191.6	-450.8	1012.1	1012.1		312.6		V. 70.	6.86-	-284.0	191.6	-100.7	5.661-	
months of the second	C:Open 18449 BWILSON 500 18450 5WILSNIN 161 1	SHAYWOOD 500 18413 SCORDOVA	SGALLAT2 161 19117	BWILSON 500 18450 SWILSNIN	C:Open 23109 05BLDBGZ 138 23197 05PHILO 138 1	סבנת לפונם	BWEAKLEY 500 18422 8JVILLE	7MCCRED 345	SHAYWOOD 500		STATE OF THE PARTY SECURITAL	7THOMHL 345 96354	MOBERLY	31222	C:Open 31609 RIVMIN 1 138 31933 WALLEN 1 138 1	Bage Case	made Case	Cropen 11315 SIAMET : 100 11316 SIAIESVE 100 2	C:0men 18430 RDAVIDSO 500 18432 BMAURY 500 1	161		BHAYWOOD 500 18413 SCORDOVA	C:Open 18885 SGALLAT2 161 19117 SFOUNTAL 161 1	200			C:Open 18449 8WILSON 500 18450 5WILSNTN 161 1	BWILSON 500 18450 SWILSNIN	BHAYWOOD 500 18413 8CORDOVA	11ALCALD 345 27004	5GALLAT2 161 19117	BWILSON 500 18450 SWILSNIN	C:Open 26013 08GRNTWN 138 Z6110 U8M16K 158 1	OSCALDWE 138			BWILSON 500 18450 SWILSNIN	C:Open 22617 05NPROCT 765 23190 05NPROCI 138 1	SHAIRCON SUC 18415 SCORDS	SWIT SWIT	05APPLEC 138 23213 059CANTO			500 18450 SWILSNIN	18449 8WILSON 500 18450 SWILSNIN	500 18413	27002 HALCALD 345 27004 LIBRAN N	X-1804 205 PURLY	19117 SFOUNTAI	C:Open 27093 11GODDRD 138 27137 11RODBRN 138 1		
	TOUR THE SDAY		0.34170	-0.13791 18720 SRADNOR 161 19070 SGRASL T	0.0000	16427 BFARADIB SUU 18428 BMCNIGOM SUU 1		0.38364 31221 MOBERLY 161 96354 STHMHIL	0.28802 18409 BJACKSON 500 18410 5JACKSON	0,39884 31239 MOREAU 161	-0.06663 30233 CALIF 161 31409 OVERION	U.34I/U 18/II SUALEATI 181 1915-0 SHERISSI	0.71235 31221 MOBERLY 161 31222 MOBERLY	0.70816 31221 MOBERLY 161 31222 MOBERLY	-0.65393 31024 MARIES 138 96292 SMARIES	- 31239 MOREAU 161 31240 MOREAU	- 30233 CALIF 161 31409	0.0000	. 1842' SPARADIS SUG 18428	0.08585 18696 SDAVSN Z 161 19070 SGASSH 1		0.28802 18409 8JACKSON 500 18410	0.34170 18711 5GALLATI 161 19154	0.08585,18698 5DAVSN 2 161 19070	G.00000 1842/ BFARROIS SUG 18428 AMONTON	- 18427 BPARALIS SUU 18428		0.13791 18698 SDAVSN 2 161 19070		0.07226 27023 11DELVIN 161 27045 11WI TAP	0.34170 18711 5GALLATI 161 19154 SHARTSVI	-0.13791 18720 SRADNOR 161 19070	0.76899 23464 OSHUNT J 138	•			2 0.13791 18698 SDAVSN 2 161 19070 SGRASL T 161 1		0.28802 18409 8JACKSON 500 18410	0.34170 18711 5GALLATI 161 19154 5HARTSVI	-0.13791 18720 SRADNOR 161 19070	0.00000 1842/ SPAKADIS SUU 19428 ONONIONI	Control of Company (718)	0.18190 18720 SRADNOR 161 18737	0.13791 18698 SDAVSN 2 161 19070	0.28802 18409 8JACKSON 500 18410 5JACKSON	0.08991 29496 20PITTSB 161 29602 20TYNER	0.07226 27023 11DELVIN 161 27045	0,79981 27105	0.34170 18711 SGALLATI LEL I9134 SHAKISVI - 0 41949 27086 11FRRM T 138 27143 11SPENC	-0.41989 2/086 IIFARM 1 130 2/11 2 2/086	
		0.02835	0.03411	-0.02114	1.00000	1.00000	0.02053	-0.04209	0.03198	0.05419	-0.08424	0.02564	0.07907	. 0.07861	-0.09969	0.03990	-0.08613	1.00000	1.00000	0.02262		0.02629	0.03467	0.02533	1.00000	1.00000	0.02147	0.02440	0.02370	0.02034	0.05129	-0.02440	0.05421	-0.03398	1.00000		0.02262	0.02723	0.02544	0.03798	-0.02262	1.00000	1.0000	0.02155	0.02481	0.02468	0.06175	0.03362	0.02019	0.04346	0.02545 -0.08845	
Swj	-1865 3 *	-336.7 *	292.1 *	481.4 *	719.8 +	719.8	-718.2	-538.6	-298.5	177.6	296.3	9.885	501.8	\$07.6	554.3 +	585.6	706.5	719.8	719.8	727.6		-363.1 *	287.4 *	649.8 *	719.8	719.8	-2183.9	-1615.7 •	-402.7	185.8 R	194.2 •	417.0 *	429.3 *	\$69.7	719.8	91641	-1742.8 *	-485.6	-375.2 *	262.3 *	449.8	719.8	719.8	-2175.8 *	-1589.1 *	-386.8	34.7 R	111.7 R	203.0 R	229.2	245.6 R	1.000
r transfer Transfer	750 0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0			750.0	750.0	150.0	750.0	750.0	750.0	0.00	756.0		750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	
Reporting the first 200 violations por transfer	770	- T	ALL	ALL	ALL_B	ALL_B	GROUP_1B	GROUP 1B	group_1B	GROUP_1B	GROUP_1B	GROUP_IB	ar anoas	GROUP 18	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	arous T	GROUP_2B	GROUP_ZB	GROUP_ZB	GROUP_2B	GROUP_2B	ar dilogo	GROUP 3B	GROUP 3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 38	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP SB	GROUP SB	GROUP SB	GROUP_58	GROUP_5B	GROUP_58	GROUP_5B	GROUP_SB	GROUP_SB
Reporting the f	Trong Proof	UNITI PHE45	UNITI_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45	INITI PHC45	UNIT! PHC45	UNITY_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	CECHT-TIMO	UNIT1_PHC45	UNIT1 PHC45	UNITY_PHC45	UNITY PHC45	UNITI_PHC45	SPONG LEAVE	UNITE PHC45	UNIT1 PHC45	UNIT1 PHC45	UNIT1 PHC45	UNITI PHC45	UNITI_PHC45	UNITI_PHC45	UNITY_PHC45	UNIT1_PHC45	UNIT: PHC45	UNIT1 PHC45	UNITI PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT PHC45	INTT1 PHC45	UNIT: PHC45	UNIT1 PHC45	UNIT1_PHC45	UNITI_PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT1_PHC45

23.714 12.844 12.054 14.1884 17.1884 17.1884 17.1884 17.184 1.764

12.54t 17.72t 3.82t 9.22t 1.47t 1.74t

23.734 12.904 3.744 52.084 22.684 3.954 11.264 13.554 19.744

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W4SP00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500 LF Case: W4SP00OS,sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W45P00OW: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case; W45P00OW;89v; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

Branch Co

FCITC MULTIPLE TRANSFER

MUST TIELG: *** MUST 3.20 *** THU, JAN 11 2001 10:26 ***	:	Title2: W45P000W: 1500 MH SPLIT BETWEEN WILSON 345 & PARADISE 500
--	---	---

Monitor File; Cr\BV-USERS\WOBODY\PHC.mon Contingency File; Cr\BV-UBERS\WOBODY\PHC.con Subpatem File; Cr\BV-USERS\WOBODY\PHC.mub Exclude File; none

		Teamster	5w1		1 Hand	New	Freedbare	Links	PTUP	Inches	PHIBARE	e ob
UNIT1 PHC45 ALL B	to.		-1047.6 *	0.07789	LONG CONTRACTOR CONTRA	Gency C. v. English 18468 BVOLUNTE 500 1	1214.2	1132.6		8	766.9	12.364
					SBULL RU 500 18468 BYOLUNTE 500 1		1810.6	1724.0	0.13049	1264.6	775.1	4.724
				-0.24304	0.60927 18422 8JVILLE 500 18430 8DAVIDSO 500 1 C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 0.0000 18430 8DAVIDSO 500 0.00	1 18430 BDAVIDSG 500 I 1 23202 05ROCKHI 138 1	1012.7	1730.5	1.00000	1012.7	1730.5	1.86
UNITI_PHC45 ALL_B		750.0	717.8	1.00000 -	BPARADIS 500 18428 BMONTGOM 500 1		1012.7	1730.5				1,86
					-0 2502 18468 SWAINTE ON 18468 SWAINTE 161 1 C:Onen 18018 SPHIPP B 500 18468	18468 BVOLUNTE 500 1	1214.2	1132.6	0.01726	793.9	768.0	10.80
UNITI_PHC45 GROU	GROUP_1B	750 0 027	-1501.3 *	0.11478	BBULL RU 500 18468 SVOLUNTE 500 1	S00 18468 BVOLUNTE 500 1	1810.6	1724.0	0.09374	1264.6	1193.9	10.02
			-	-0.04047	MOBERLY 161 96354 STHMHIL 161 1 C:Open 96150 7MCCRED		-354.7	-334.7	-0.05253	-222.1	-196.2	15.047
				-0.04452	FRKN 138 30650 GRAY SUM 138 2 C:Open 30593 FRKN		-305.0	-286.2	-0.02282	-156.4	-146.7	18.241
			-423.7 +	-0.04452	FRKN , 138 30650 GRAY SUM 138 1 C:Open 30593 FRKN	138 30650 GRAY SUM 138 2	.305.0	75.0	0.04087	52.1	44.2	87.411
			-193.9	0.06941	MOBERLY 161 31222 MOBERLY 69.0 2 C:Open 31221 MOBERLY		87.9	75.0	0.04005	51.0	43.5	86.20
		750.0	-187.5 +	0.06900	ROBERTS 69:0 1 C:Open 18425 SCUMBERL		1831.9	1731.4	-0.19658	635.1	775.5	8.55
-	GROOTE IB		* 0.155	-0.09274	MARIES 138 96292 SMARIES 161 1 C:Open 31609	3 31933 WALLEN 1 138 1	-65.0	7.56-	-0.08098	-25.4	-52.2	40.604
UNIT1 PHC45 GROU			348.1 .	27.00.0	OVERTON 345 31409 OVERTON 161 1 C:Open 96162 7THOMHL		.,	289.9	0.08078	188.6	216.7	12.17
			431.2 *	0.07990	MOREAU 161 31240 MOREAU 69.0 1 C:Open 30677 GUTHRIE	161 30805 JC FAIR 69.0 99		6.00	0.06358	# . #F	7.00	10.34%
	GROUP_1B		560.7	0.04087 -	MOBERLY 161 31222 MOBERLY 69.0 2		1,26	0.67				8.05
			598.4	0.04005 -	MOBERLY 161 31222 MOBERLY 69.0 1		38.8	6.68				3.08%
			710.3	0.06358 -	MOREAU 161 31240 MOREAU 69 0 1 Base Case	1 BEI ANT ABOUT AFT	1012.7	1730.5	1.00000	1012.7	1730.5	1.86%
			717.8 *	1,00000			1012.7	1730.5				1.861
UNIT1_PHC45 GROU	GROUP_1B	750.0 7	720,0 *	-0.14772	LKSIDE 1 136 31024 MARIES 138 1 C:Open 30532 ELDON	161 96168 5BARNET 161 1	-36.6	-143.0	-0.09107	-26.7	-92.3	3,07
						t and armitotic con 1	1914 9	1132.6	0.02290	793.9	767.6	11.90%
		•	-1150.7	16070.0	SYOLUNTE 500 18469 5VOLUNTE 161 1 C:Open 18018 SFHIFF B	500 18468 SVOLUNTE 500 1	1610.6	1724.0	0.11761	1264.6	1195.9	11.46%
		750.0 -5	-584.9	0.14807	C:Open 18425 BCUMBERL	0 16430 8DAVIDSO 500 1	1831.9	1731.4	-0.16891	835.1	177.3	6.934
ONITY PHOAS GROOT	GROOM 28		717.8	1.00000	BPARADIS 500 18428 BMONTGOM 500 1	05E LIMA 138 23202 05ROCKHI 138 1	1012.7	1730.5	1.00000	1012.7	1730.5	1.864
			717.8	1.00000	SPARADIS		1012.7	1730.5				
						1 194 NITHELLENIN 161 1	387.8	360.0	0.00620	259.2	251.0	12.15
			-1313.1 *	0.02123	SRADNOR 161 18737 SNOLNVLE 161 1	0 18468 BVOLUNTE 500 1	1214.2	1132.6	0.03390	793.9	766.2	13.61
			-817.7 *	0.09979		0 18468 BVOLUNTE 500 1	1810.6	1724.0	0.15838	1264.6	1197.5	13.91
	GROUP_3B	0.027	- 423.e	-0.02166 -	11BLUE L 161 29248 20BLIT C 161 1	8 23711 05LTV 138 1	239.9	239.9	-0.02166	237.6	237.6	13 714
CANATA PHC45			23,1	0.02672	11MC-DD 138 27295 11WC-DD 69.0 1	8 27150 11W CLIF 138 1	141,2	141.8	0.01372	835.1	0.777	4.25
			433.0 R	-0.23219		0 18430 BDAVIDSO 500 1	1831.9	1/31.4	0.07201	-16.6	34.6	8.09
		750.0	710.8 •	0.13908		0.27.50 IIFALLS 69.0 2	-32.0	66.9	0.06708	-15.4	32.3	\$60.8
UNIT1_PHC45 GROO			710.9 *	0.13908	IICANAL 69.0 Z/Zeu IIFALLS 69.0 I	B 23164 05MALVER 138 1	1012.7	1730.5	1.00000	1012.7	1730.5	1.86
			717.8 *	1.00000			1012.7	1730.5				1.86
UNIT1_PHC45 GROW	GROUP_3B	750.0	977.9	. 00000.1					0.01410	9. 101	768.8	14.53
UNIT: PRC45 GROI	GROUP 4B	7- 0.057	-737.2 *	0.11069	8VOLUNTE 500 18469 5VOLUNTE 161 1	0 18468 BVOLUNTE 500 1	1419.2	1724.0	0.18162	1264.6	1197.1	15.161
		750.0 -3	-371.9 •	0.23290	8BULL RU 500 18468	D 18466 SVOLONIE 300 I	82.0	77.2	-0.02011	44.5	41.2	22.35%
				-0.02941	OSRICHCT69.0 24689 OSTREATY69.0 1	O 24690 COMMAN CO. C.	82.0	76.7	-0.00930	37.5	35.8	21.85%
				-0.02941	OSRICHCT69.0 24690 OSNWHIH 69.0 I	0 22553 05BROADF 500 1	248.7	239.9	-0.01812	237.6	230.2	3.09
_				-0.02161	AIBLUS LIST 29240 ZUBLII CIVI I	0 18430 BDAVIDSO 500 1	1631.9	1731.4	-0.13071	1.50	775.6	3.77
			455.0 R	-0.22099	145 22987 05SPORNA 138 1	5 23190 05NPROCT 138 1	194.4	210.8	0.02550	159.7	173.4	10.1
			617.0 *	0.02556	APARANTS 500 18428 BMONTGOM 500 1 C:Open	8 23193 05NWOODC 138 1	1012.7	1730.5	1.00000	1012.7	6.06.1	1 2 4
		750.0	717.8	1.00000	SPARADIS 500 18428 SMONTGOM 500 1		1012.7	1730.5				;
UNIT_PRC45	a tanone					1 191 NJANE CATA OFFI	387.8	360.0	0.00773	259.2	249.4	12.32%
UNIT1 PHC45 GRO	GROUP_5B	750.0 -13	-1263.0 *	0.02207	SRADNOR 161 18737 SNOLNVLE 161 1	O 18468 RVOLUNTE 500 1	1214.2	1132.6	0.04886	793.9	760.4	15.09
	GROUP_SB		-685.6 *	0.11902	SVOLUNTE 500 18469 SVOLUNTE 161 1	500 18468 BVOLUNTE 500 1	1810.6	1724.0	0.17568	1264.6	1198.2	14.984
			-378.3 *	0.22893	SEULE RU SOO 1846H SVOLONIE SUO I CIOPEN	27017 11ARNOLD 161 27023 11DELVIN 161 1	1.99.1	197.6	-0.06282	166.4	165.3	31.06%
200	GROUP_5B	750.0	18.0 R	-0.08382	C:Open	27110 11LR TAP 138 29387 20JK9MIT 138 1	-168.2	-164.2	0.07872	-141.4	-157.9	7.421
UNIT: PHC45 GRO												
	ar John State			30000	11KENTON 138 29566 20SPURLK 138 1 C:Open	27105 11KENTON 138 29566 20SPURLK 138 2	-281.7	-280.0	0.01/48		-1117	24.85

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OW: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Case: W4SP00OW 384; MON: PHC,mon; SUBSYST: PHC,sub; CONT: PHC,con; EXCL: PHC,EXC

Cardio Cardio

24.854	20.41\$	18.07	7.518	6.834	4.834	6.34%	6.251	58.621	4.524	4.404	8.79%	51.214	2.924	25.911	2.52\$	17.871	1.861	1.864		9.634	10.20		1.861		108.6	8.544	6.02	3.65	1.804		11 931	11.971	11.381	38.301	169.81	22.684	10. 3	166.82	7.651	7.65%	5.67	6.07	2 35	1.85		13.50k	13.644	4.97	2.964	1.864	1.86 E	10.234	9.134	4 . 28 4	404	1.86	
-47.7	139.1		102.1	-106.4	120.0	9.14.	4.4	-16.1	-258.3	-256.9	-121.0	11.3	775.4	-26.4	220.3	-23.2	1730.5			766.8	1192.8	7.00/			762.0	1183.3	-121.9	770.8	1730.5		253.3	765.1	1197.0	138.2	37.2	-123.9		1.64.8	-167.4	167.4	32.1	119.0	119.0	1730.5		7.797	1196.9	176.4	229.9	1730.5		763.4	1187.4	-121.9	1772.6		•
-49.5	143.9	-110.3	7.86	-103.7	113.8	70.2	6.69	8.4-	-242.4	-240.7	-89.2	-1.2	835.1	-14.4	183.2	-9.7	1012.7			793.9	1264.6	1.550			793.9	1264.6	-110.3	635.1	1012.7		259.2	793.9	1264.6	143.3	7.60	-117.7	2.4.2	46.35.1	1 190	106.5	7.66	6.78	87.2	1012.7		793.9	1264.6	835.1	237.6	1012.7		793.9	1264.6	-110.3	835.1	1017.	
0.01705	-0.03841	-0.06772	0.01786	-0.01211	0.01786	0.01225	0.01220	-0.02652	-0,03599	-0.03599	-0.06772	0.02652	-0.11951	-0,02240	0.06742	-0.02240	1.00000			0.01216	0.06366	0.20494			0.01535	0.07605	-0.03289	-0.13970	1.00000		0.00427	0.02538	0.11415	0.02979	-0.01251	-0.03099	-0.02316	-0.14237	0.25201	0.10186	-0.01251	0.04999	0.04999	1.00000		0.03050	0.15495	-0.14506	-0.01856	1.00000		0.01708	0.08420	-0.02785	-0.14746	1.00000	
-71.8	222.9	-216.9	172.0	-161.7	190.8	132.2	132.2	-58.5	-307.3	-306.0	-216.0	57.4	1731.4	-58.5	470.5	8 4	1730.5	1730.5		1132.6	1724.0	1731.4	1730.5	1/30.5	1132.6	1724.0	-216.9	1731.4	1730.5	1730.5	0 096	1132.6	1724.0	176.0	60.1	-175.6	-142.1	1731.4	242.2	224.0	51.8	142.2	142.5	1730.5	1730.5	1132.6	1724.0	1731.4	239.9	1730.5	1730.5	1132.6	1724.0	-216.9	1731.4	1730.5	1730.5
-74.7 -71.8	232.0	-205.3	167.6	-157.1	182.7	124.3	124.2	-13.9	-287.2	-285.5	-184.2	7.9	1831.9	-20.0	437.5		1010	1012.7		1214.2	1810.6	1831.9	1012.7	1012.7	1214.2	1810.6	-205.3	1831.9	1012.7	1012.7		201.10	1810.6	188.6	64.0	-161,1	-122.3	1831.9	124.1	156.9	64.0	100.0	69.3	1012.7	1012.7	1214.2	1810.6	1631.9	248.7	1012.7	1012.7	1214.2	1810.6	-205.3	1,831.9	1012.7	1012.7
138 1	2	Chopen 29356 2008SMIT 181 29500 4040MBDD 181 1	SOMAYOUT 138 29566 20SPURLK	70707 11TMBODE 161 27040 11POCK N	24432 20MAYSV. 138 29566 20SPURLK	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161	23051	27099 11HARDBG 138 27100	27099 11HARDEG 138 27100 11HARDN 138	11101 88aD CRX 500 11102 BJOCASS 500	2015 105 FEBRUARE 138 23173 05MILLER 138	1947E SCHWEEF, EDG 1843A SDAVIDS	SELLINGS COLCE OF SELLINGS CAPEL	SAC NAGLE BILL STOCK SAC IN MARKET ACCES	Z/UU4 IIBKWN N 345 Z/UIS IIR UEAN	05F0LbKK 138 231/3	10169		C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	18457 8WBNP 1 500 18468 8VOLUNTE 500	SCUMBERL 500 18430 SDAVIDSO 500	G:Open 23132 05E LIMA 138 23202 05ROCKHI 138 1	Base Case	C:Open 18018 8PHIPP B 500 18468 8VOLUNTE 500 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	SBAD CRK	SCUMBERL	C:Open 23132 05E LIMA 138 23202 05ROCKHI 138 1	Ваве Саве		C:Open 18449 BWILSON 500 18450 5WILSNIN 191 I		14HENDRS 161 27617 14HENDR4 138	26855 10NEWIVE 138 26886	C:Open 26861 10ABBRWN 138 27617 14HENDR4 138 1	C:Open 25948 08GIBSON 345 26081 08GIB 138 1	18425 8CUMBERL 500 18430 8DAVIDSO 500	27561 14MILSO7 345 27563 14COLE 7 345	10CULLEY 138 26879	SAMESTAL 138 26879 INGKNOVM 138	161 27616 14N.HARS 161	SPARADIS 161 27616 14N. HARS 161	DSEASTOW 138	Base Case	9775		ACTIMARRIE SOO 18430 BDAVIDSO 500	BSULLIVA 500 22553 05BROADF 500	05E LIMA 138 23193 05NWOODC		COD STRAINTS ones one of the straints assessed	200	BBAD CRK 500 11102 BJOCASSE 500	SCUMBERL 500 18430 SDAVIDSO 500	C:Open 23132 05B LIMA 138 23202 05ROCKHI 138 1	Bane Case
Contraction of the contract of	UDAVIS 69.0 29419 SUFAISITIES.	1LR TAP 161 27045 11NI TAP 161	. III72 SROBBING 161 18040 SSANIEEI 161 A	DEL CACCOLL SECT SEL	POCKET 181	161 27095 11GR RVR 138	1GR RV 161 27095 11GR RVR 138	24067 DEGRAYSE69 0 24077 OSFRANKN69.0	BEL WITHRELL CALCO SAE UTINGLE	PAC NUMBER CORE SAC MONTH	tal pulled on the tal the manual	SNANIAHA 161 111/2 SKOBBINS 161	OSCURAZBES O 29198 ZUANGIM 09:00	18422 BJVILLE SUU 1843U BDAVIDSO SUU	05PLYM. G69.0 24091 05N HAVHES.0	11W LEXN 34S 271S3 11W LEXN 138	05FRANKN69.0 24084 05FLYM. G69.0	0.00000 18427 8PARADIS 508 18428 8MONIBOM 500 I	or control of the con	-0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1	BBULL RU 500 18468	8JVILLE 500 18430	500 18428 BMONTGOM 500	- 18427 SPARADIS 500 18428 BMONTGOM 500 1	2 SELL TURKE BANG SON TRAFF SON TRAFF SUCCESSION TO THE SON TRAFF	00117.1. DII 5.00 18468	SPORBTNS 161 18040 59ANTERT 161	BJVILLE S00 18430 BDAVIDSO 500	8PARADIS 500 18428			SRADNOR 161 18737 SNOLNVLE 161	BVOLUNTE 500	SECULIA NO SOU LOADS SVOLONIA SOU	138 2686 10NEWTVI.69.0	10NEWIVL 138	0	w	10NEWTVE 161	161	10ABBRWN 138 27617 14HENDR4 138		0.14359 27106 IIKNOB C 138 27135 IIFOND C 138 1	SPARADIS SOO 18428 SMONTGOM	8PARADIS 500 18428		BVOLUNTE SOD 18469 SVOLUNTE	SBULL RU 500	SOVIETE SOU 18430 SDAVIDSO	IIBUUE D ISI 29248 20BLII C	BMONTGOM 500	!	BVOLUNTE 500 18469	0.75412 18464 8BULL RU 500 18468 8VOLUNIE 500 1	500 18430 8DAVIDSO	0.0000 18427 8PARADIS 500 18428 BMONTGOM	- 18427 8PARADIS 500 18428
100T 101	0.02766	-0.07280	-0.06772 -	0.02309	-0.02086	0.02303	0.02369	61201 0-	0.1010	0.040.0	20000	-0.06772 -	0.10519	-0.20146	-0.07154	0.05978	-0.07154	1.00000	- 00000.T	0.03661	0.07671	-0.37916	1.00000	1.00000 -		10000	96080.0	-0.21832	1.00000	1.00000 -		0.02022	0.07199	0.14612	0.07307	-0.07243	-0.05260	-0.25844	0.25107	-0.11232	0.11232	-0.02018	0.06777	1,0000	1.00000		0.09505	0.19809	-0.24864	-0.02119	1.00000	i	0.04575	0.09443	-0.02785	1.00000	1,00000
KCIEC E		125.2 R	171.7	188.7	221.0	346.1	* 6 9 9 6	432 6 4			9.75	469.3		499.1 R		550.7	. 8.609	717.8	B. / T/	-2228.8 *	-1128.9 *	265.2 R	717.8 •	8.717		. 1.0902-	. B. 690T-	460.68	717.8	717.8		-1378.8 *	-1133.4 •	-592.7	-172.9	200.2 *	376.2 *	389.1 R	470.3 *	597.7.*	597.7	606.7 R	623,5	637.3	717.8			-437.2 •	404.4 R	413.2 R	717.8	:	-1783.5 •	-917.1 *	417.6	717.8	717.8
Devel	750.0	750.0	750.0	750.0	750.0	9.04/	0.00	0.067	0.067	750.0	0.05/	750.0	150.0	750.0	750.0	150.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0			0.05/	750 0	750.0	750.0		750.0		750.0	750.0	250.0	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0			750.0	750.0	750.0	750.0
Zb Jevel Pout 6	GROUP_5B	GROUP_SB	GROUP_58	group_58	group_58	GROUP_SB	arono en	de droge	GROUP_SB	GROOF SB	GROUP SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP 6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B		akook 18	GROUP 7B	group 78	GROUP 78	GROUP 7B	١.	GROUP 8B	GROUP_68	GROUP_8B	GROUP_8B	GROUP_6B	BE STORE	GROUP AB	GROUP BB	GROUP_6B	GROUP_6B	GROUP_88	GROUP_8B	GROUP_8B	GROUP BB		GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	and another .	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB
	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNIT1_PHC45	Thirt Phote	UNITE PRICES	UNITI_FHC45	UNITA_PHC45	UNITI PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1_PRC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45	UNITY PHC45	UNIT1 PHC45	UNIT: PHC45	UNIT1_PHC45	UNIT1_PHC45		ONITE PHOAS	UNIT1_PHC45	UNITI_PHC45	UNIT'S PHC45	UNIT1 PHC45	ı	UNIT1_PRC45	UNIT1_PHC45	UNITI_PHC45	UNIT1 PHC45	UNITI_PHC45	UNIT' DUCAS	INITI PHEAS	UNIT1 PHC45	UNIT1 PHC45	UNIT1_PHC45	UNIT1_PHC45	UNITI_PHC45	UNIT1_PHC45	UNITI_PHC45		UNIT1_PHC45	UNIT1_PHC45	UNIT1.PHC45	UNIT1_PHC45	UNITI_PHC45	ON I'I PHC45	UNITA_PHC45	UNIT1_PHC45	UNIT1_PHC45	UNIT1 PHC45	UNITI_PRC45

Scenario 5

Case; 2004 SUMMER PEAK ECAR BASE CASE
G61P00_S; 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case; G61P00_S.aav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL; PHC.EXC

Carrier Services

		none	Exclude File: none
		Subsystem File: C:\BV-USRRS\NOBODY\PKC.sub	Subsystem File: (
		Contingency File: C:\BV-USERS\NOBODY\PHC.con	Contingency File: (
		Monitor File: C:\BV-USERS\NOBODY\PHC.mon	Monitor File: 0
& PARADISE 500	TWEEN GREEN RIV 161	GG1P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 & PARADISE 500	Title2:
	CASE	2004 SUMMER PEAK ECAR BASE CASE	Title1:
	2001 19:07 ***	MUST Title: *** MUST 3,20 *** WED, JAN 10 2001 19:07 ***	MUST Title:
$\texttt{G61P00_S+G61P00.T}$		FCITC MULTIPLE TRANSFER REPORT:	FCITC MUL

ALL B 1500.0 26,9 R 0.03321	26.9 R		0.03321		0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	CSGE LAHENDRS 161 27617 14MENDR4 138	-176.9	-176.0	0.01772	-128.7 -128.2		27.79
B 1500.0 277.3 •	277.3		0.14267				17.1	116.7	0.08051	43.5		
1500.0 278.2 + 0.14255	278.2 + 0.14255	+ 0.14255			11GR RV 161	27028 11GR RV 161 27095 11GR RVR	0.77	116.7	0.08021	63.3	65.7 149.21\$	
1500.0 304.3 R -0.03351 -	304.3 R -0.03351 -	R -0.03351	•	٠,	10CULLEY 138	27560 14HENDR5	185.7	175.5	-0.01733	162.3		
1500.0 405,7 * 0.04485	405,7 1 0.04485	0.04485		0 0	0.75819 27095 11dR RVR 138 27126 110HIO C 138 1	C:Open 27095 Ligh KVR 138 27126 LightO C 138 2	136.4	157.8	0.02417	75.2		28.09\$
631.2 * 0.05141	631.2 * 0.05141	0.05141		, ,	27126 110HIO C 138	C:Open 27012 11SMITH 345 27142 119MITH 138 1	132.4	164.8	0.04573	117.9		27.13\$
1500,0 754.9 * 0.02071	754.9 * 0.02071	0.02071			11GR RVR69.0 27271	27028 11GR RV 161	39.0	54.6	0.00325	20.2		28.32%
B 1500.0 837.2 * 0.02517	837.2 * 0.02517	. 0.02517	Ċ	Ģ	-0.25375 27205 11E VIEW69.0 29571 20STEPHN69.0 1	138	19.5	40.6	0.01479	6.3		41.024
1500.0 860.6 • -0.05688	860.6 * -0.05688	0.05688		_	11CLVRPR 138	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	-141.9	1,90.8	-0.02220	-53.6	-72.7	19.092 40.764
1500.0 908.7	7.806		0,08051 -		11GR RV 161	Base Case	43.5	116.7				40 204
B 1500.0 914.4 0.08021 -	914.4 0.08021 -	0.08021 -	•		11GR RV 161	Base Case		140.4	0.03840	8.81.	-57.2	9.321
1500.0 999.40.02749	999.4 * -0.02749	* -0.02749			-0.62960 26855 10NEWIVE 138 26857 10NEWIVE 161 1	CTOPER SEAST LUCULDER 138 48879 LUCKNOW 130 4	117.9	164.8				13.164
1500.0 1026.1 0.045/3 :	1026.1 0.045/3 :	0.045/3	1		TIONED CITE 126 2700E 1100 DEE	C.Omen 27561 14WT[807 345 27563 14COLE 7 345 1	73.7	-179.0	-0.07957	-43.1	-128.5	23.39%
TIBED O C. C	T1860:0 (.2/01	1100.00			TIENDE N 161	345 27563 14COLB 7	-86.1	-181,6	-0.07283	-66.6	-148.7	17.351
1262 9 * 0 18845	1262 9 * 0 18835	18835			27553 14WILSOS 161 27561 14WILSO7	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 2	. 181.9	419.7	0.10508	101.4	234.1	10,66%
1500 0 1252.9 4 0.18835	1262.9 4 0.18835	4 0.18835		0.79	14WILSOS 161 27561 14WILSO7	27553 14WILSOS 161 27561	181.9	419.7	0.10508	101.4	234.1	10.66
1500.0 1347.8 • -0.04297	1347.8 • -0.04297	-0.04297		0.426	11BONNIE 138	C:Open 27109 11LEITCH 138 27141 11SHREWS 138 1	-82.6	-140.5	-0.04091	-59.9	-115.1	4.67
1500.0 1439.7 * 0.50000	1439.7 * 0.50000	000005.0		0.00	0.00000 18427 SPARADIS 500 18428 SMONTGOM 500 1	C:Open 23113 05BROADA 138 23240 05TIDD 138 1	1012.1	1731.9	0.50000	1012.1	1731.9	
ALL B . 1500.0 1439.7 0.50000 -	1439.7		0.50000 -		18427 SPARADIS 500 18428 SMONTGOM 550 1	Bane Caso	1012.1	1731.9		,	4	
B 1500.0 1464.0 * 0.04337	1464.0 * 0.04337	. 0.04337		0.682	11CORY T 161	G:Open 27020 11CORY T 161 27021 11CORYDO 161 1	32.4	9.56	0.03850	, E	44.0	1.00%
AGL_B 1500.0 1467.1 * 0.02449 0.450	1467.1 * 0.02449	• 0.02449		0.450	0.45069 27020 11CORY T 161 27021 11CORYDO 161 1	C:Open 27028 11CORY T 161 27035 11MORGNF 161 1	8.75			}		
GROUP 1B 1500.0 -533.4 * -0.04249 0.3836	-533.4 * -0.04249	-0.04249		0.3836	0.38364 31221 MOBERLY 161 96354 STHWHIL 161 1	C:Open 96150 7MCCRED 345 96162 7THOMHL 345 1	-357.3	-334.7	-0.05593	-209.4	-179.6	
1500.0 -443.9 + 0.02151	-443.9 * 0.02151	. 0.02151		0.286		8HAYWOOD 500 18413	9.757	748.4	-0.00060	532.9	533.1	385.28
1500.0 25.9 R 0.03458	25.9 R 0.03458	R 0.03458		0.4067	10NEWTVL 138 26879	27560 14HENDRS 161 27617	ï	176.0	0.01928	5.051	67.6	188.88
1500.0 177.0 0.05438	177.0 • 0.05438	0.05438		0.3988	MOREAU 161 31240	30677 GUTHRIE 161 30805	150 6	175.7	E0050.0	-114.9	-140.2	59.13%
1500.0 290.7 + -0,08586	290.7 + -0,08586	0,08586	•	-0.0666	CALIF 161 31409		185 7	175.5	-0.01891	162.3	156.7	24.02
1500.0 292.2 R -0.03490	292.2 R -0.03490	R -0.03490		-0.424	10CULLEY 138 26879	ZISSI IAKBID S JAI ZISSU	1.22	116.7	0.07327	43.5	65.8	132.96%
1500.0 304.7 * 0.12984	304.7 * 0.12984	• 0.12984		0.77	11GR RV 161 27095	SCOLD THE NA THE SCOLD	27.0	116.7	0.07299	43.3	65.7 132.73%	
1500.0 305.6 • 0.12973	305.6 • 0.12973	0.12973		7.0	11GR RV 161 27095	STOCK INTO THE TOTAL	139.6	157.8	0.02538	83.6		29.26\$
1500.0 424.1 * 0.04291	424.1 * 0.04291	. 0.04291			27095 11GR RVR 138 27126 110HIO C	2/095 ILON KVR 130 2/120	245.0	287.6	0.07890	183.2	222.0	30.381
1500.0 491.4 * 0.08664	491.4 * 0.08664	. 0.08664			OVERTON 345 31409 OVERTON	Could the Standard tone	35.0	74.7	0.04647	20.6	44.0 1	105.31
. 0.07891	502.9 * 0.07891	* 0.07891			MOBERLY 161 31222	Sizet moderni tot state	8.45	74.7	0.04553	20.2	43.4 104.104	
1500.0 508.6 * 0.07844	508.6 * 0.07844	* 0.07844		ö	MOBERLY 161 31222	Serve age min ages some	136.4	157.8	0.02312	75.2	17.1	26.29
512.0 * 0.04192	512.0 * 0.04192	. 0.04192		Ö	11GR RVR 138 27126	Z/095 IIGH KVK ISB Z/128	-41.2	5.96	-0.08624	-2.3	-50.3	96.77
1500.0 557.5 * -0.09912	557.5 * -0.09912	0.09912	•	è	MARIES 138 96292	STORE OF THE STATE OF THE		54.6	0.00644	20.2	23.9	45.66
1500.0 578.7 • 0.02702	578.7 • 0.02702	. 0.02702		0.5	11GR RVR69.0	TOT AN ADIT DZD/Z	132.3	164.8	0.04359	117.9	146.8	
662.6 * 0.04903 -	662.6 * 0.04903 -	- 0.04903 -	•		110HIO C 138 27141	THE TAXABLE SECTE	50.9	83.5	0.03245	33.1	57.1	
1500.0 738.3 0.04410	738.3 * 0.04410	. 0.04410		•	APCH FLT 161	THE PROPERTY OF THE PERSON AND THE P	-10.3	-141.0	-0.09735	-11.4	-89.8	
1500.0 805.6 + -0.16229	805.6 * -0.16229	-0.16229			Salah Paul 138 aleka eta aleka eta	12002 11SMITH 345 27142 11SMITH	-141.9	-190.8	-0.02670	-53.6	-75.8	
1500.0 830.6 * -0.05893	830.6 * -0.05893	-0.05893			TICLVER 130	27061 11BONNIE 138 27141	19.5	40.6	0.01396	4.3	16.6	
1500.0 882.4 0.02388	882.4 • 0.02388	. BECZO.0 .		,	21400	30957 LKSIDE 1	-25.2	163.7	0.15062	-31.9	105.1	
1002.0 - 1.200.0 0.0021	1/102:0 - 1.605	11/07:0		,	11EARL N 161 27042 1180 TAP	27020	-81.4	-181.6	-0.08788	9.99-	-149.5	32.26
1191.0	ALIAL 0 + C ALOC	1191.0		4.0	LKSIDE 1 138	C:Open 30532 ELDON 161 96168 5BARNET 161 1	-23.2	140.9	0.09670	-22.0		
1500 0 1109 5 0 20771	1109 6 • 0 20771	-0 20771		35	RLDON 161 96168	C:Open 30957 LKBIDE 1 138 31024 MARIES 138 1	ਜ਼. •	-234.5	-0.15062	2.5		
- 09000 0 0 0 0000	- 100000	- 0.09242	•	-	11GR STL 138 27095	C:Open 27561 14HILSO7 345 27563 14COLE 7 345 1	73.7	-179.0	-0.07479	-43.1		_
ALCOLO LESSES DE LOCAL	1130.0	4100.0			11CORY T 161 27035	CiOpen 27020 11CORY T 161 27021 11CORYDO 161 1	32.4	95.9	0.04811	9.6	ě	: :
7750.0	7750.0	4 4 4 4 4 5			14WILSOS 161 27561 14WILSO7	C:Open 27553 14WILSOS 161 27561 14WIL9O7 345 2	181.9	419.7	0.10288	101.4	3 :	1.67
1500.0 1289.8 * 0.18442	1289.8 * 0.18442	. 0.18442		ò	14411305	161 27561 14WILSO7	181.9	419.7	0.10288	101.1	7	: "
1500.0 1301.0 * 0.02761	1301,0 + 0.02761	• 0.02761		•	11CORY T 161 27021		37.8	73.8	6,000,0			74.8
1500.0 1301.9 0.06635 -	1301.9 + 0.06635 -	• 0.06635	. '	ė.	CLARK N 138 31515 PLPS N	30532 ELDON 161 96168 SBARNET	19.5	105.9	0.50000	1012.1	1731.9	6
1500.0 1439.7 * 0.50000	1439,7 * 0.50000	0.50000		0	SPARADIS 500 18428 SHONTGOM	C.Open 96310 SMORGAN 161 96946 ZELMOOD 69.0	23.9	174.8	0.05919	27.3	113.9	
GROUP_1B 1500.0 1463.6 * 0.10311 -0.	1463.6 * 0.10311	• 0.10311		ė	-0.49392 30233 CALIF 161 96168 58ARNET 161 1					•		
GROUP 28 1500.0 25.8 R 0.03472 0.406	25.8 R 0.03472	0.03472		0.406	0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	-176.9	-176.0	0.02151	-128.7	-128.2	29.08

17.401	110.364	23.078	20.25	27.941	19.561	19.164	20 05	20.05	18.70%	18.224	13.36%	13.624	1.741	1.744	0.22	17.254	174.864	14.574	40.67	27.261	12.134	28.424	22.381	32.824	98.214	22.034	10.321	1.74		32.034	16.551	147.06%	146.821	31.984	32.324	31.354	50.67	3.29%	8.934	6.364	39.41\$	38.85	0.514	100	97.74	39.031	160.241	30.67	47.71	19 284	20.97	* 15.02
1	65.8	•			146.7	80.4	334 1	234.1			-148.0	-126.0	1731.9		185.4			146.0		93.3	157.5		146.7	16.9	32,3	-128.7	234.1	1731.9		155.2			65.7	87.1	146.5	23.2	16.6	405.3		193.2			-176.9	9	-52.7		6 5 8		-112.3	92.6	157.5	131.1
162.3	43.5 5	43.3	75.2	20.2	117.9	-53.6		101.4			-66.6	-43.1	1012.1		155.4	-128.7	43.5	9.561	14.8	82.6	162.3	-87.1	117.9	£. 5	-19.3	-43.1	101.4	101.4		168.0	162.3	43.5	43.3	75.2	117.9	20.2	e . 4	399.5		171.7			9.99-		-128.	-73.2	5.5	5.09-	-88.8	8.66	162.3	162.3
-0.02132	0.06335	0.06311	0.01962	0.00452	0.03713	-0.03112	0.01224	0.11973			-0.06810	-0.06806	0.50000		0.02032	0.01010	0.09166	0.09132	0.02559	0.02414	0.00978	-0.03530	0.04110	0.01372	0.05958	-0.07841	0,10455	0.10455		0.02576	-0.01961	0.07946	0.07916	0.02643	0.05045	0.00414	0.01630	0.00734		0.02419			-0.07418		0.01493	0.02581	0.08525	0.03180	-0.08469	-0.02427	0.00562	-0 01445
175.5	116.7	116.7	157.8	54.6	164.8	-190.8	9.04	419.7	116.7	116.7	-181.6	-179.0	164.8	1731.9	283,5	-176.0	116.7	116.7	143.3	157.8	175.5	-114.2	164.8	40.6	6.99	-179.0	419.7	1711.9		189.7	175.5	116.7	116.7	157.8	164.9	54.6	-290.8	450.3	189.7	-148.4	116.7	116.7	1731.9		-176.0	-95.1	116.7	-94.4	-217.0	142.0	78.9	176 6
176.6	17.1	77.0	136.4	39.0	130.2	-141.9	19.5	6. TB1.	43.5	43.3	-86.1	-73.7	1017.9	1012.1	246.6	-176.9	1.77	77.0	120.1	139.6	185.7	136.4	132.3	19.5	0.04	7.67-	181.9	181.9		202.9	176.6	1.77	77.0	139.6	132.4	39.0	-141.9	433.9	168.0	-121.0	43.5	43.3	1012.1		-176.9	6.86-	1.77	7.001-	-193.5	158.8	72.1	
7 138 26875 10ANGMND 138 1	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR	C:Open 27095 11GK RVR 138 27126 11CHIO C 138 2	11GR RV 161 27042 11RQ TAP 161	14WILSO7 345 27563 14COLE 7 345	11SMITH 345 27142 11SMITH 138	11BONNIE 138 27141 118HREWS	161 27561 14WILSOV 345	CONTRACT YES	Days Case	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1		Base Case C.Omen 25672 ARRESTULAGE A 25721 ARTESTAGES A 1	Base Case	C:Open 32388 SIDNEY 138 32394 WINDSOR 138 1	14HENDR4 138	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	OBGRNIWN 138 26110 OBMIER 138	27095 11GR RVR 138 27126 110HIO C 138	27551 14RBID 5 161 27560 14HENDRS 161	C:Open 27095 11dR RVR 138 27126 110HIO C 138 1	27240 11LEITCH69.0 27259 11OHIO C69.0	27061 11BONNIE 138 27141 11SHRE#	C:Open 27180 llCANAL 69.0 27260 llFALLS 69.0 l	27561 14HILSO7 345 27563 14COLE	27553 14WILSOS 161 27561 14WILSO7 345	C.Open 27553 14WILSOS 161 27561 14WILSO7 345 2		22617 05NPROCT 765 23190	C:Open 2/560 IAMENDKS 151 2/51/ IAMENDK4 156 1 C:Open 26851 10CULLEY 138 26875 10ANGMND 138 1	27028 11GR RV 161 27095	27028 11GR RV 161 27095 11GR RVR	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	27012 115MITH 345 27142 115MITH	11GR RV 161 27042 11RQ TAP	11SMITH	500 18432 8MAURY		C:open 26851 10CULLEY 138 26879 10GRNDVM 138 1	CODEN Zeb/ Courred to Azeri Corcinii to I. Base Ceer		C:Open 32325 NAEMP TP 138 32340 OKAWVE 138 1		C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	27002 11ALCALD 345 27004 11BRWN N 345	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	27093 11GODDRD 138 27137 11KODBKN 11101 8BAD CRK 500 11102 8JOCASSE	29386 20JKSMIT 161 29500 20POWELL	C:Open 27061 11BONNIE 138 27141 115HREWS 138 1	
0.16225 26851 10CULLEY 138 26879 10GRNDVW 138	0.77504 27028 11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV 161	0.75819 27095 11GR RVR 138 27126 11OHIO C 138 1	0.21911 27216 11GR RVR69.0 27271 11RQ TAP69.0	0.06288 27126 110HIO C 138	0.59632 27079 11CLVRPR 138 27094	-0.25375 27205 11	0,79255 27553 14MILSOS 161 27561 0 7875 151 2011-01-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	- 27028 11GR RV 161 27095 11GR RVR 138	- 27028 11GR RV 161 27095 11GR RVR 138	-0.09930 27025 11EARL N 161 27042	-0.15549 27094 11GR STL 13B 27095 11GR RVR	- 27126 110HIO C 138 27141 115HREWS 138 1	18427 8FARADIS 500 18428 8MONTGOM	0.59319		0.77504 27028 11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV 161 27095 11GR RVR	0.7489 23464 05HUNT J 138	0.75819 27095 11GR RVR 138 27126 11OHIO C	0.42491 26851 10CULLEY 138 26879	0.74075 27095 11GR RVR 138 27126 11OHIO C 138 2	-0.57605 27126 110HIO C 138 27141 115HREW	-0.25375 27205 11E VIEW69.0 29571		-0.15549 27094 11GR STL 138 27095	0.79255 27553 14WILSOS 161 27561	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 1	one etherwise treet nonne.	0.07024 22570 05SPORN 345 22987 05SPORNA	0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	0.77504 27028 11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV 161 27095 11GR RVR		0.74075 27095 11GR KVK 138 27126 11OH1O C 138 -0.09775 27126 11OH1O C 138 27141 11SHKEW9 138	0.21911 27216 11GR RVR69.0 27271	0.59632 27079 11CLVKPR 138 27094	0.08585	- 22570 058PORN 345 22987	-0,62960 26855 10NEWIVL 138 26857 10NEWIVL	0.02352 26030 06BATESV 138 25182 07HUBBL8 138 1	27028 11GR RV 161 27095 11GR RVR	0.00000 18427 SPARADIS	-0.01908 27025 IIEAKL N 161 27092 IIKU IAF	0.40677 26855 10NEWTVL 138 26879	0.08991 29496 20PITISH 161 29602 20IRMEN 0.02006 07007 11DELWIN 161 27045 11HI TAP	0.77504 27028 11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV 161 27095 11GR RVR) -0.41989 27086 11FARM T 138 27143 115PENC 138 1	0.32764 27034 11LR TAP 161 27045 11MI TAP	-0.31949 27109 11LEITCH 138	
-0.02109	0.11226	0.11217	0.03640	0.02057	0.04456	-0.05697	0.02062	0.21462	0.06335	0.06311	-0.07984	-0.08645	0.03713	0.50000	0.02502	0.02084	0.16244	0.16231	0.05432	0.04081	-0.02099	0.03987	0.04626	0.02295	0.11507	-0.09649	0.18741	0.18741	0.000	0.02674	0.03818	0.14081	0.14069	0.04904	0.04791	0.02181	-0.06632	0.02778	0.02576	-0.03186	0.02532	0.07916	0.50000	-0.07295	0.03108	0.05666	0.15107	0.15094	0,02350	-0.05682	0.02204	
50.4 R	352.4	353,5	499.9	760.3	775.3 *	859.3 *	1021.7	1108.3	1154.8	1162.1	1196.1	1217.3	1263.7	1439.7	1475.2 *	42.9 R		244.3	428.4	445.9	485.7 R	538.3	702.3	918.3	928.5	1090.7	1269.2 +	1269.2	1439.7	-494,5	23.4 R	281.0 *	281.8 *	371.1	568.2	717.1 •	738.1	758.6 *	844.9	862.2	\$ 1.00	926.5	1439.7 *	1487.9	28.8 R	37.8 R	261.9 *	262.7 *	266.0 R	277.9 = 296.2 R	311.6	
1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0061	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	
1P00 GROUP_2B 1500.0 50.4 R	GROUP_2B	GROUP_2B	GROUP_28	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 28	GROUP 2B	GROUP_ZB	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	group_3B	GROUP_3B	GROUP_3B	GROUP 38	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	group_3B	GROUP 3B	GROUP_3B	GROUP_3B	GKOUP, 3B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_58	GROUP_5B	GROUP_SB	GROUP 5B	
061700	G61P00	961200	G61200	061700	G61P00	001100	061500	GELPOO	G61P00	G61P00	G61200	061200	G61P00	GELPOO	061190	961200	061200	061200	GELPOD	361900	G61P00	Géiro	G61P00	001190	061200	G61P00	G61P00	G61 P00	004140	G61 P00	G61P00	061,000	GGIPOO	061700	G61P00	061200	061200	361200	061200	061200	GG1POO	G61P00	G61P00	961200	061200	061200	G61P00	G61200	G61.P00	G61P00	GELPOO	3

Case: 20td SUMMER PEAK ECAR BASE CASE
661902 S: 1500 MW SPLT BETWEET OREEN RIV 161 PARADISE 500
15. 1500 MW SPLT BETWEET OREEN RIV 161 PARADISE 500
15. 150 MW SSAN; MON! PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

339,634	37.664	28.688	40.404	39.81	157.174	11.924	250.054	63,191	4.064	26.70	27.801	16.114	23.464	46.274	B. 23*	7.374	5.04	33.224	16 241	10.991	8.211	16.65\$	1.741	6.281	19.08	9.324	9.324	14.081	2.76%	10.27	5.30\$	4.74	1.20\$	9.281	11.754		19.414	116.754	14.361	69.978	22.094	19.284	55.574	16.004	38.55	10.85%	21.804	16.46%	14.194	2.376	4.004	6.824	1.748	2.334		6.331	25.55
1		0. 6.	-111.1	146.2	-23.5		20.5	5 91	405.8	-65.3	22.8	9.65-			104.6	-117.7	-231.6	-129.9	31.5	160.9	-150.2	-148.0	-377.7	-176.2	-171.2	234.1	234.1	5,3	121.7	29.0	105.6	-262.8	238.8	10.5	- 68 0	1/31.9	-128.2	65.8	156.3	24.7	93.3	87.1	-149.9	146.B	-20.7	.77.3	215.0	7.78	15.2	-57.8	.129.0	14.3	1731.9	234.1		531.6	-128.2
	75.2	1.69	71.2	117.9	B.6-	-155.6		4.1.0	3.660	-53.6	20.2	-18.8			91.5	-86.9	-208.1	-43.1	7 9	2.414.	-113.7	9.99-	-352.8	-137.7	130.6	101.4	101.4	-1.4	95.7	e. 5	91.3	-148.0	213.4	1.4	48.0	1012.1	-128.7	43.8	162.3	20.2	95.6	75.2	9.99-	117.9	, 4	-53.6	85.7	33.5	F. 5.	9.81	-43.1	-4.2	1012.1	101.4		532.9	1 20 7
0.03253	0.02972	-0.03253	-0.00362	0.05704	-0.02737	-0.02118	-0.02737	61810	0.00897	-0.01588	0.00335	-0.04331			0.01495	-0.03427	-0.02455	-0.09053	0.01486	-0.05142	-0.03292	-0.07148	-0.02149	-0.03292	0.00808	0.10298	0.10298	0.00516	0.01977	0.01475	0.01076	-0.08498	0.01873	0.00670	-0.09756	0.5000	0.01389	0.06615	0.06590	0.01019	0.02092	0.01906	-0.11146	0.03497	0.06286	-0.02247	0.11717	0.00377	0.01577	-0.06664	-0.06113	0.01292	0.50000	0.09207	0.0920	0.00323	
45.7	157.8	-58.7	-81.6	164.8	0.65-	-213.1	0.65-	1.63.7	450.3	-190.8	54.6	-148.4	164.8	116.7	158.0	-178.0	-343.8	-179.0	78.8	-140.5	-249.7	-191.6	-440.0	-276.9	52.6	419.7	419.7	58.7	178.1	48.0	167.6	1308.0	304.8	53.0	0.88-	1731.9	-176.0	116.7	175 5	9.42	157.8	157.8	-181.6	164.8	6.56	126.2	257.2	73.8	55.0	-174.9	-129.0	20.0	1731.9	419.7	419.7	748.4	
-5.1	136.4	r. o :	-175 8	132.4	-12.5	-199.0	e	26.1	433.9	-141.9	0.60	-121.0	117.9		139.5	-158.2	-313.3	7.57-	41.3	182,6	-191.4	-86.1	-414.0	-215.5	3.6.6	181.9	181.9	0.2	143.4	10.0	137.3	-176.0	270.3	2.6	48.0	1012.1	-176.9	77.1	195 7	1.681	139.6	136.4	-81.4	132.3	3.6	6.61	101.5	37.8	7.5	-57:2	-121.0	-10.3	-	181.9	181.9	757.9	
C:Open 23051 05FULUR 138 23173 05MILLBR 138 1	27095 11GR RVR 138 27126 110HIO C	23051 0SFULLER 138 23173 05MILLER	C:open 27061 1180NNIE 138 27141 11SHREWS 138 1	27012 113MITH 345 27142 118MITH	23051 05FULLER 138 23173 05MILLBR	27064 11BRWN N 138 27101 11HIGHY	23051 05FULLER 138 23173 05MILLBR	23051 OSPULLER	SECONDE 138 2/141 IISHKEMS BEAVIDSO 500 18432 SMAURY	27012 11SMITH 345 27142 11SMITH	27028 11GR RV 161 27042 11RQ TAP	26851 10CULLEY 138 26879	Base Case	Base Case	Badd Cadd	SALCOA S 161 18900 SFONTANA	OSNPROCT 765 23190	27561 14WILSO7 345 27563 14COLE 7 345 1	24088 05DCHEMP69,0 24089 05E HAVNE	27109 11LEITCH 138 27141	C:Open 27065 118KWN P 138 27066 118KWN11 138 1	27561 14WILSO7 345 27563 14COLE 7	25691 08SGROVE 138 25692 08SGROVE	27097 11HAEFLI 138 27153	23051 OSFULLER 138 23173 OSMILLBR	C:Open 27149 11VILEY 138 27153 11M LEXN 138 1	27553 14MILSOS 161 27561 14WILSO7	23051 05FULLER 138 23173 05MILLBR	29200 20AVON 345 29564 20SPURLK	23051 05FULLER 138 23173 05MILLBR	27015 11W LEXN 345 27153 11W LEXN		138 22997 05TRISTA	23051 05FULLER 138 23173 05MILLBR	30712 HAVANA S 138 32407	C:Open 31651 ROXFORD 345 32278 STALLING 345 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	27551	27126	27095 11GR RVR 138	27020 11CORY T 161 27028 11GR RV 161	27240 11LEITCH69.0 27259 11OHIO C69.0	27025 11EARL N 161 27042 11RQ TAP 161	27269 11PRINCE69.0 27293 11WALKER		27035 11MORGNF	27025 11EARL N 161 27042	27025 11EARL N 161 27042	26851 10CULLEY 138 26879	C:Open 27561 14NILSO7 345 27563 14COLE / 345 1 C:Omen 27033 11LIV C 161 27043 119 PADU 161 1	96166 SASHRVL 161 96242	27553 14WILSOS 161 27561 14WILSO7	G:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	C:Oben 18017 8HAYWOOD 500 18413 8CORDOVA 500 1	
-0.77645 24067 05GRAYSB69.0 29198 20ARGTM 69.0 1	0.74075 27095 11GR RVR 138 27126	0.77645 24067 05GRAYSB69.0 24077	0.31949 27109 11LEITCH 138 27141	-0.09775	0.48488 24084 05PLYM.G69.0 24091	27057 11BKR LN 138 27064	24077 05FRANKN69.0 24084	29196 20ARGTM 138 29198	-0.25375 27205 11E VIEW69.0 29571 2051EPHN69.0 1 0.08585 18598 5DAVGN 2 161 19070 5GRASE T 161 1	0.59632 27079 11CLVRPR 138 27094	0.21911 27216 11GR RVR69.0 27271	-0.62960 26855 10NEWTVL 138 26857	27126 110HIO C 138 27141	11GR RV 161 27095	27028 11	19040 SSANTEET 161 18900 SFONTANA	22950 05KENOVA 138 22997 05TRISTA	27094 11GR STL 138 27095 11GR RVR	24088 05DCHEMP69.0 24091	27061 11BONNIE 138 27141	0.98237 27065 118RWN P 138 27067 118RWNI2 138 1	27057 IIHAEFLI 138 27749 IIVILEI 27025 11EBBI N 161 27042 11RO TAP	25404 08BUFTN1 138 25405	27149	24075 05LEONKY69.0 29406	0.59551 27097 11HARFLI 138 27153 11M LEXN 138 1	2/353 19#1L3OS 161 2/361 14#1L3O/	24085 05SCIOTI69.0 24087 05WHEELR	27093 11GODDRD 138	24070 05	0.21179 27101 11HIGBY 138 27136 11REYNOL	-0,33271 27006 11HARDN 345 27012 11SMITH	-0.33271 27012 11SMITH 345 27142 11SMITH 138 I	29339 20GRAYSN69.0 29479	11095 RJRTOBCV 100 11307	0,00000 18427 81	0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	0.77504 27028 11GR RV 161	0.77439 27028 11GR RV 161 27095 11GR RVR	-0.42491 26851 10CULLEY 138 26879	0.21911 27216	0.75819 2/095 LIGK NVK 138 2/128 0 74075 27095 1108 RVR 138 27126	0.33947 27025 11BARL N 161 27042	-0.57605 27126 110HIO C 138 27141	-0.14981 27020 11CORY T 161 27035	0.39733 27223 11HARDST69.0 27293	0.59632 27079 11CLVRPR 138 27094 11GR STL	-0.36038	0.45069 27020 ILCORI 1 181 77021 ILCORIDO -0.18932 27197 ILEMRIN69.0 27293 ILMALKER	0.20359 27020 11CORY T 161 27028	-0.62960 26855 10NEWTVL 138 26857	-0.15549 27094 1	0.06167 18053 ZKY.DAM 69:0 Z7Z76	0.79255 27553 14WILGOS 161 27561	0,79255 27553 14		0.28802 18409 BJACKSON 500 18410
0.13734	0.05388	-0.13734	-0.02204	0.06534	-0.09282	-0.02634	-0.09282	-0.17422	0.03117	95990.0-	0.02052	-0.03420			0.08493	0.02100	-0.03189	-0.10984	0.03687	-0.05381	-0.08041	-0.05253	-0.02244	-0.05253	0.03069	-0.05253	0.18460	0.04451	0,02641	0.02862	0.02277	-0.09774	-0.09774	0.03688	-0.09756	0.50000	0.02338	0.11723	0.11713	-0.02360	0.03587	0.03537	-0.13408	0.03924	0.07956	-0.02200	-0.04640	0.14118	0.03210	-0.08933	-0.02061	-0.07497	0.02111	0.50000	0.16505		0.02525
	₹ 6.866	432.8 *	434.7	4 96.6	500.2	534.0 +	546.2 *	630.6	712.1	735.5 *	762.2 4	803.3 *	822.6	858.2	863.6		957.4	958.1 +	1018.0 •	1076.1 *	1094.0	1136 4 4	1157.6	1170.0 *	1172.7 •	1233.0 *	1200 5 4	1313.1 *	1314.0 +	1327.6 •	1328.5 *	1333.6 *	1350.3 *	1365.2 *	1394.5 *	1439.7	38.3 8	337.5 *	338.5 *	432.2 R	436.0 *	514.5	747.4 *	828.1	• 0.D96	1040.5 *	1055.0 *	1103.4 •	1119.1 *	1317.7 •	1333.3 *	1403.7 •	1434.6	1439.7 *	1441.2 *	;	* 0 BCF-
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.005	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0
GROUP SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP GROTE	GROUP_SB	GROUP_58	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	as diloas	GROUP 5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_5B	GROUP SH	GROUP 5B	GROUP_5B	GROUP 58	GROUP_SB	GROUP SB	GROUP_SB	GROUP SB			GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	as alload	GROUP 68	GROUP_GB	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP GB	GROUP 6B	GROUP 6B	GROUP_GB	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUPEB		Annette un
00	061700	00	G61P00	061200	GELPOO	GGIPOO	061200	061P00	G61200	GGIPOD	G61P00	G61P00	Gelpoo	96100	061200	G61200	G61P00	00150	061200	061200	961200	961200	GETEGO	G61P00	GG1POO	G61P00	Gelpoo	G61,P00	G61P00	G61P00	GELPOO	GG1PDO	061200	061200	061200	GGLPOO	000	G61200	061200	G61P00	061100	061200	GG1P00	G61P00	961200	G61P00	G61P00	061200	G61P00	G61P00	061200	G61P00	G61P00	G61P00	Gelroo		

	PHC.EXC
Case: 2004 SUMMER PEAK ECAR BASE CASE	G61P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500 LF Case; G61P00_S.eav; MON: PHC.mon; SUBSYST: PHC.aub; CONT: PHC.con; EXCL: PHC.EXC

المدار الدار

140.134	139.904	30.564	24.436	81.134	28.71%	41.594	4.69.4	30.01	22.661	9.114	43.054	44.354	11.34%	35.504	29.031	14.591	22.051	944	454	1.74%	1.774	0.93	62.354	41.241	24.628	94.301	30.94%	30.881	63.271	54.67	7.354	67.341	30.66	33.611	28.294	32.924	11.724	12.641	9.34	13.104	3.69	2.13%	1.74	1.744	2.681	1.281	1.24%	0.91	0.484	28.73\$	153.34%	153.094	23.791	30.61%
8.9			6. 1.	-74.2	146.8	23.7	403.4	104.2	-74.2	-112.3	3.6.5	-93.0	-55.5		-149.4		-128.8	234.1	234.1	1731.9	217.5	5.77	148.7	-128.4	145.7	120.4	-162.7	162.8	234.1	67.7	-211.8	4.64	173.2	-104.8	415.4	-65.1	110.9	-143.4	-55.1	467.2	350.1	27.7	1731.9		392.9			105.2	-67.8	2 821.	8.59	65.7	156.9	93.3
43.5	43.3	162.3	87.6	-42.5	117.9	20.2	399.5	-76.2	7.97-	88.8	4.5 E.	-42.5	-18.8		9.99-	:	-43.1	101.4	101.4	1012.1	85.7	9.6	162.3	-128.7	137.9	125.1	-118.4	118.4	101.4	-18.8	-184.4	4. 4. 6. 6. 6. 6.	25.0	-53.6	117.9	-43.1	73.4	19.1	9,99-	-216.3	196.7	27.6	1012.1	;	34.8			64.0	-53.6		43.5	43.3	162.3	82.6
0.07642	0,07613	-0.01562	0.02738	-0.06124	0.04730	0.00571	0.00592	-0.03955	-0.03946	-0.02884	0.01490	-0.06124	-0.03932		F 6 4 8 9 3		-0.07852	0.10239	0.10239	0.50000	0.09050	0.04569	0.01763	-0.01851	0.01944	0.17715	-0.07198	0.07198	0.18719	0.09917	-0.03043	0.00631	0.13248	-0.04555	-0.00216	-0.01886	0.02910	-0.13248	0.00842	0.49938	0.07198	0.00002	.00005.0	;	0.06445			0.02818	05600.0-		0.01842	0.08191	-0.01803	0.02621
116.7	116.7	175.5	157.8	129 9	164.8	54.6	450.3	-154.0	-154.1	-190.8	40.6	163.0	-148.4	116.7	116.7	164.8	-179.0	419.7	419.7	1731.9	257.2	95.9	175.5	-176.0	201.5	226.7	-223.5	223.6	419.7	148.4	-245.9	116.7	264.8	-190.8	164.8	-179.0	262.3	-264.9	-181.6	557.7	-255.4	64.2	1731.9	1731.9	-142.7	-223.5	223.6	140.4	-191.7		116.7	116.7	175.5	157.8
17.1	0.77	185.7	139.6	136.4	132.3	0.66	433.9	-112.6	-112.6	-141.9	19.5	-74.4	-121.0	43.5	43.3	117.9	-73.7	181.9	181.9	. 42.6 L C101	107.1	19.5	212.6	-176.9	191.6	107.2	-175.4	175.4	181.9	8. 25.	-218.8	-14.6	26.9	0.4	87.2	24.5	76.1	75.8	6.7-	-205.4	99.0	35.4	1012.1	1012.1	71.2	-116.4	118.4	64.0	9.65-		-176.9	77.0	185.7	, ,,,
27028 11GR RV 161 27095 11GR RVR 138	11GR RV 161 27095 11GR RVR 138	27551 14REID 5 161 27560 14HENDR5 161	11GR RVR 138 27126 11OHIO C 138	27095 11GR RVR 138 27126 110HIO C	C:Open 11087 BADIN 100 11192 ALBEMAKE 100 1	27028 11GR RV 161 27042 11RQ TAP 161	18430 BDAVIDSO 500 18432 BMAURY 500	11192 ALBEMARE 100 11291 OAKBORO 100	11192 ALBEMARL 100 11291 OAKBORO 100	11SMITH 345 27142		2/081 ILBONIE 138 2/141 ILBONIES 130	26851 10CULLEY 138 26879 10GRNDVW 138	Sase Case	Base Case	C:Open 27020 licoky T 161 27028 lick KV 161 1	S61 14WILSO7 345 27563 14COLE 7 345	14WILSOS 161 27561 14WILSO7 345	27553 14HILSOS 161 27561 14HILSO7 345	27109 11LEITCH	14COLE 7 345	27561 14HILSO7 345 27563 14COLE 7 345	C.O. 26661 102888N 138 27617 14HENDR4 138 1	26861 10ABBRWN 138 27617 14HENDR4	18885 5GALLATZ 161 19117 SFOUNTAI 161	C:Open 25948 08GIBSON 345 26081 08GIB 138 1	26851 10CULLEY 138 26879 10GRNDVW 138	26851 10CULLEY 138 26879 10GRNDVW	27553 14WILSOS 161 27561 14WILSO7	C:Open 27553 14#ILSOS 161 27561 14WILSO7 345 1	26170 08AMO 345 26186 08BELLEU	27028 11GR RV 161 27553 14WILSOS	C:Open 27028 lidR RV 161 27553 14M/LUSOS 181 1 C:Onen 27561 14MILSO2 345 27562 14REID 7 345 1	27028 11GR RV 161 27553 14WIL\$O5	in 27028	Base Case C:Onen 27028 11GR RV 161 27553 14WILSOS 161 1	14WILSO7 345 27562 14REID 7 345	27028 11GR RV	14WILSOS 161	18026 SBARKLEY 161 27619 14HOPCO5 161	27561 14WILSO7 345 27562 14REID 7 345	C:Open 27561 14WILGO7 345 27562 14REID 7 345 1	CO 230 13800 3JST-8C 115		11GR RV 161 27553 14WILGOS	561 14WILSO7 345 27563 14COLE 7 345		27028 11GR RV 161 50011 #2-161 161	161 50011 #2-161	7,000 LIGR RV AND 3000+ 40 2001	27560 14HENDRS 161 27617 14HENDR4 138	C:Open 27028 lidR RV 161 27095 lidR RVR 138 1	27551 14RBID 5 161 27560 14HBNDR5 161	
0.77504 27028 11GR RV 161 27095 11GR RVR 138 2	11GR RV 161 27095 11GR RVR	OCULLEY 138 26879	1GR RVR 138 27126 110HIO C 138	1GR RVR 138 27126 110HIO C 138	ADIN	11RO TAP	18698 SDAVSN 2 161 19070	LBEMARL 100 11291 OAKBORO 100	11192 ALBEMARE 100 11291 OAKBORO 100	0.59632 27079 11CEVRPR 138 27094 11GR STL 138	- 11172 SROBBINS 161 18040 SSANTEET 161 1	27205 11E VIEWB9:0 295/1	ONEWTVE 138 26857 10NEWTVE 161	1GR RV 161	27028 11GR RV 161 27095 11GR RVR 138	0.33947 27025 11EARL N 161 27042 11RQ TAP 161 1	JOHLO C 136 2/141 IISAREWS 138	27553 14WILSOS 161 27561 14WIL907 345	27553 14WILSOS 161 27561 14WILSO7 345	1BONNIE 138 27141 115HREWS 138	0.00000 18427 8PARADIS 500 18428 BMONIGOM 500 I	27020 11CORY T 161 27035 11MORGNF	C SEL BUMNADO C STORE OF WASHING FROM COLOR	138 26879 10GRNDVW 138	18711 SGALLATI 161 19154 SHARTSVI 161	26078 080KLND 138 27871 16PETE 138	0.41731 26857 10NEWIVE 161 2/552 14COLE 5 161 1 -0 36118 27560 14MEWIRS 161 27617 14HEWIR4 138 1	26861 10ABBRWN 138 27617 14HENDR4 138	27553 14WILSOS 161 27561 14WILSO7 345	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 2	138 26081 08GIB 138	11GR RV 161 27095 11GR RVR 138	- 1	27094 11GR STL 138	110HIO C 138 27141 11SHREHS 138	10NEWIVE	14HANCOS 161	14REID 5 161 27619 14HOPCOS 161	14SKILMS	14WILSO5	14REID 5 161 27560	14WILSO7 345 27563	-0.52513 26877 10ELLIOT 138 26878 10ELLIOT69 0 1	500 18428 SMONTGOM	10NEWTVL 138 27079 11CLVRPR	14WILSO7 345 27562 14REID 7	27560 14HENDRS 161 27617 14HENDR4 138 1	27106 11KNOB C 138 27135 11POND C	- 27135 11POND C 138 27144 11TIP	- 27025 11EARL N 161 27033 11LIV C 161 1	138 26879 10GRNDVW	11GR RV 161 27095 11GR RVR	0.77439 27028 11GR RV	-0.42491 26851 10CULLEY 138 26879 10GKNDVW
0.13542 0.77504 27028 1	0.13531	-0,03085	0.04629	0.04523	-0.10726	0.05554	0.02502	-0,05841	-0.05834		•	0.02572	-0.02949		0.07613 -	-0.10194	- 064730 -	0.18354	0.18354	-0.04464	0 50000	0.05153		-0.04779	0.02510	-0.03589	0.22219	0.07817	0.33555	0.33555	-0.03012	0.14038	0,13986	0.21272	0.06872	0.17715	0.14463	-0.25995	-0.24859	0.55744	-0.14265	0.27950	0.02011	0.50000	-0.14854	0.32903	-0.07198	0.05219		-0.09268	0.03431	0.14570	0.14557	-0.03463
292.1	293.1 *	330.5 R	393.1 +	474.6 *	517.5	610.6	657.8	708.3 •	711.8 •	196.9	816.0	819.1	931.7 *	957.3	963.4	983.1 *	1090 4 1	1296.0	1296.0 *	1297.2 *	1439.7	1482.9		1.897 -	397.0	529.7 *	537.8	616.5	108.9	708.9	900.6	934.9	938.2	1118.6 *	1129.6 *	1137.8	1287.4	1310.7 *	1365.6	1366.9	1391.6 •		1432.7	1439.7	1440.3 *	1451.2 *	1459.1	1463.6 *	1475.7 *	1489.9	26.1 R	271.5	272.4	294.5 R
61P00 GROUP 7B 1500.0 292.1	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	;	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0
GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_78	GROUP_7B	GROUP 7B	GROUP_1B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_1B		GROUP_6B	GROUP_8B	GROUP_8B	GROUP_8B	GROUP BB	GROUP_8B	GROUP_BB	GROUP_8B	GROUP_8B	GROUP_BB	GROUP_BB	GROUP_8B	GROUP, 8B	GROUP_BB	GROUP_BB	GROUP_6B	GROUP_BB	GROUP AB	GROUP_8B	GROUP_8B	GROUP_6B	GROUP 8B	GROUP 8B	GROUP_8B	GROUP_8B	GROUP_BB	GROUP_8B	GROUP NB	GROUP_NB	GROUP NB	diversity NB
G61 P00	GG1P00	G61P00	G61P00	961200	061200	G61P00	961900	G61P00	061200	061200	G61P00	G61200	G61P00	G61P00	G61P00	G61P00	961 P00	G61P00	G61P00	061200	G61P00	GG1POO		G61900	06120	061200	GG1P00	G61F00	061200	d61P00	Gelpoo	G61P00	001190	G61P00	G61P00	061200	G61P00	G61200	G61P00	961900	061200	G61P00	GG1POO	961900	G61500	GG1POO	GGIPOO	961200	061100	961100	061 200	004190	961800	06100

Participant of

119,7 0.10232 101.4 239.1 73.8 0.00652 33.5 42.2 181.6 0.5000 1012.1 1731.9	37.8 (3.6) -66.6 -181.6 -1012.1 1731.9		Base Case	0.02705 0.45069 27020 11CORY T 161 27021 11CORYDO 161 1 0.08405 - 27025 11ERRE N 161 27042 11RG 77P 161 1	1328.2
0.10232 101.4 0.00652 33.5	7	•		0.45069 27020 11CORY T 161 27021 11CORYDO	1328.2 *
0.10232 101.4		н	C: Open 27020 11CORY T 161 27035 11MORGNF 161		
	•	2	C:Open 27553 14WILSOS 161 27561 14WILSO7 345	0.79255 27553 14WILSOS 161	1296 8 *
0.10232 101.4			C:Open 27553 14WILBOS 161 27561 14WILBO7 345	0.79255 27553 14MIL805 161 27561 14WILSO7	1292.6
-0.04280 -59.9 -	-82.6 -140.5		C.Open 27109 11LEITCH 138 27141 11SHREWS 138	TOUR T TEST	1269.6
0.04556		:	۲	-0.05761 -0.50003 11254 HLNG SPG 100 11267 LINDENST LUG I	1233.5
-0.03676 2.3		*	C:Open 27561 14MILSO/ 345 27553 14COL8 / 345	-0.15549 27094 11GR STL 138	1087.5 *
9 -0.07678 -43.1 -128.8	117.9 Ist. 6.711		Base Case	- 27126 110HIO C 138 27141 118HREWS	988.1
0.00-		н	C:Open 27020 11CORY T 161 27028 11GR RV 161	-0.10173 0.33947 27025 118ARL N 161 27042 11RQ TAP 161 1	985.1 *
				GR RV 161	6.096
-		•	Base Case	- 27028 11GR RV 161	954.9
-0.05315 -42.5	•	7	C:Open 11087 BADIN 100 11192 ALBEMARL 100	11192	950.7 •
-0.03942 -18.8	•		EY 138	-0.02950 -0.62960.26855 10NEWIVI, 138 26857 10NEWIVL 161 1	931.2 •
-0.02589	•			.0.02589 - 11172 SROBBINS 161 18040 5SANTEET 161 1	909.2 *
-0.03428 -76.2		,	C:Open 11192 ALBEMARE 100 11291 OAKBORO 100	-0.05067 0.47727 11192 ALBEMARL 100 11291 OAKBORO 100 1	819.4 *
-0.03436 -76.2	•		C:Open 11192 ALBEMARL 100 11291 CAKBORO 100	-0.05074 0.47786 11192 ALBEMARL 100 11291 CAKBORO 100 2	815.4 *
0.01498 4.3		1	C:Open 27061 11BONNIE 138 27141 11SHREWS 138	0.02584 -0.25375 27205 11E VIEW69.0 29571 20STEPHN69.0 1	815.3 *
-0.02522 -53.6	141.9 -190.8		C:Open 27012 11SMITH 345 27142 11SMITH 138	-0.06136 0.59632 27079 11CLVRPR 138 27094 11GR STL 138 1	* F. F8T
0.00556 399.5			C:Open 18430 8DAVIDSO S00 18432 8MAURY 500	0.02346 0.08585 18698 5DAVSN 2 161 19070 5GRASL T 161 1	
0.00567 20.2			C:Open 27028 11GR RV 161 27042 11RQ TAP 161		4 4 .
0.04748 117.9 1	132.4 164.8		C:Open 27012 11SMITH 345 27142 11SMITH 138		614.0 *
-0.05315 -42.5	-74.4 -129.9		C:Open 11087 BADIN 100 11192 ALBEMARL 100	0.05341 -0.09775 27126 110HIO C 138 27141 118HREWS 138 1	614.0 *
0.02504 75.2	136.4 157.8		C:Open 27095 11GR RVR 138 27126 11OHIO C 138		607.6 • 614.0 •
0.02748 82.6	139.6 157.8	2	C:Open 27095 11GR RVR 138 27126 11OHIO C 138		472.9 * 596.2 * 607.6 * 614.0 *
-0.01576 162.3 1	185.7 175.5	1 18		,	391.7 * 472.9 * 596.2 * 607.6 * 614.0 *
. 0.07632 43.3	77.0 116.7	2	C:Open 27551 14REID 5 161 27560 14HENDRS 161	-0.42491 26851 10CULGEY 138 26879 10GRNDVW 138 0.75819 27095 11GR RVR 138 27126 11GHIO C 138 0.74675 27095 11GR RVR 138 27126 11GHIO C 138 0.75158 11G87 BADIN 100 11122 ALBENARL 100 -0.0975 27126 11GHIO C 138 27141 11GHENSE 138	328.1 R 472.9 * 596.2 * 607.6 *
0.07661 43.5	77.1 116.7	1 7	C:Open 27028 11GR RV 161 27095 11GR RVR 138 C:Open 27551 14REID 5 161 27560 14HRNDRS 161	0.77439 27028 11GR RV 161 27095 11GR RVR 1186 -0.4241 56591 10GRUST 118 28709 10GRUST 128 0.75819 27095 11GR RVR 138 27126 11GRUC C 138 0.74075 27095 11GR RVR 138 27126 11GRUC C 138 0.9775 27126 110RTC C 136 27141 11GRESWE 138	292.3 • 328.1 R 391.7 • 472.9 • 607.6 • 614.0
0.01614128.7 -1	176.9 -176.0		C:Open 27028 11GR RV 161 27095 11GR RVR 138 C:Open 27028 11GR RV 161 27095 11GR RVR 138 C:Open 27551 14REID 5 161 27560 14HENDR5 161	0.77564 27028 11QR RV 161 27095 11QR RVR 138 0.77439 27028 11QR RV 161 27029 11QR RV 182 0.74391 26651 10CULGK 138 2669 10QRUDWH 180 0.75839 27095 11QR RVR 138 27126 11QHUC C 138 0.74075 27095 11QR RVR 138 27126 11QHUC C 138 0.7575 77126 11QHUC C 138 0.7575 77126 11QHUC C 138 0.775 77126 11QHUC	291.4 • 328.3 • 328.1 R • 472.9 • 607.6 • 614.0 • 701.4 • 701.4 • 70
0.00292 532.9	757.9 748.4	•	27560 14HENDRS 27028 11GR RV 27028 11GR RV 27551 14REID S	0 -4077 5655 10NEMPUL 118 2689 10GRNDWN 118 0.77439 7028 11GR KW 151 27095 11GR KW 151 27095 11GR KW 151 27095 11GR KW 118 27095 11GR KW 118 27156 11GR CO 138 0.74075 27095 11GR KW 118 27126 11GR CO 138 0.74075 27095 11GR KW 118 27126 11GR CO 138 0.9775 7126 11GR CO 138 27141 11GREWE 118	29.0 R 291.4 • 292.3 • 328.1 R 391.7 • 596.2 • 607.6 • 701.4 • 701.4 • 7
	1731.9		C:Open 18017 8HAYMOOD 500 18413 8CORDOVA 500 C:Open 27560 14HRNDRS 161 275517 14HRNDR4 139 C:Open 27028 110R RV 161 27055 110R RVR 138 C:Open 27528 110R RV 161 27055 110R RVR 138 C:Open 27551 14HRDF 5 162 27560 14HRNDR5 161	, ,	-393.5 * 291.4 * 292.1 R * 392.1 R * 472.9 * 607.6 * 6
9 0.50000 1612.1 1731.9			Bade Case C:Open 18017 8HAYMOOD 500 18413 8CORDOVA 500 C:Open 27028 110R RV 161 27055 110R RVR 138 C:Open 27028 110R RV 161 27055 110R RVR 138 C:Open 27528 110R RV 161 27055 110R RVR 138 C:Open 27551 14RED 5 162 27560 14RED58 161	, ' '	1419.7 -393.5 * 29.0 R 291.4 * 292.3 * 392.1 R 391.7 * 472.9 * 556.2 * 667.6 *
-0.04027 -59.9			C:Open 2312 OSBRIDOV 138 23156 OSCHANDR 138 Base Case C:Open 18017 84AYWOOD 500 18413 8CORDOVA 500 C:Open 27560 144RNDRS 161 2752 144RNDR4 138 C:Open 27028 110R RV 161 27055 110R RVR 138 C:Open 27028 114RRD 5 161 27560 144RRDR5 161 C:Open 27551 144RRD 5 161 27560 144RRDR5 161	, ,	1439.7 • 1439.7 • 1439.7 • 1439.7 • 139.5 • 291.4 • 291.7 • 1928.1 • 1928.1 • 1928.1 • 1928.1 • 1928.1 • 1928.1 • 1928.1 • 1928.2
0.10622 101.4		+ + + ·	C:Open 27109 11LETTCH 138 2724 11SHRENS 138 C:Open 27122 05BRIDOV 138 23126 05CHANDR 138 Base Case C:Open 18017 8HAXWOOD 500 18413 8CORDOVA 500 C:Open 27560 14RENDES 151 27651 14RENDEA 138 C:Open 27028 11GR RV 151 27055 11GR RVR 138 C:Open 27028 114REND 5 154 27650 14RENDES 155 C:Open 27551 14REND 5 154 27550 14RENDES 155	, ,	1387.4 • 1429.7 • 1439.7 • 13439.7 • 13439.7 • 1320.1 • 292.3 • 292.3 • 472.9 • 596.2 • 607.6 • 607.6 • 701.4
0.10622 101.4			C:0pen 27553 14HR1GOS 161 27561 14HISO7 345 C:0pen 27109 11LBTCH 130 27141 119RREWS 139 C:0pen 27109 11LBTCH 130 27141 119RREWS 139 C:0pen 27028 110R RV 161 27095 11QR RVR 138 C:0pen 27028 11QR RV 161 27095 11QR RVR 138 C:0pen 27528 11QR RV 161 27095 11QR RVR 138 C:0pen 27528 11QR RV 161 27095 11QR RVR 138 C:0pen 27528 11QR RV 161 27095 11QR RVR 138 C:0pen 27528 11QR RV 161 27095 11QR RVR 138 C:0pen 27528 11QR RV 161 27095 11QR RVR 138	, , ,	1149.3 • 1149.7 • 114
-0.06807 -66.6	•	+ + + + + + + + + + + + + + + + + + +	C:Open 27553 1441605 161 2754 1441607 145 C:Open 27553 1441605 161 2754 14411607 145 C:Open 27153 14411605 161 2754 14111607 135 C:Open 2712 0581DOV 128 2714 1198NEK9 138 C:Open 2712 0581DOV 128 2715 0581NDN 128 C:Open 2755 148NEWDO 50 18413 8CORDOVA 500 C:Open 2705 1108 RV 161 2705 1108 RVR 138 C:Open 2702 1108 RV 161 2705 1108 RVR 138 C:Open 2702 1108 RV 161 2705 1108 RVR 138 C:Open 2702 1108 RV 161 2705 1108 RVR 138 C:Open 2702 1108 RV 161 2705 1108 RVR 138	,	11449.3 • 11549.3 • 11549.4 • 11439.7 • 11439.7 • 11439.7 • 12439.7 • 12439.7 • 12439.7 • 1329.1 • 132
0.00912 14.8		+ + + + + + + + + + + + + + + + + + +	C: Open 27551 148715607 345 27551 44020E 7 345 C: Open 27551 148715605 161 27551 148715607 345 C: Open 27552 148715605 161 27551 148715607 345 C: Open 27552 148715605 161 27551 148715607 345 C: Open 27109 118871501 139 27125 05CHANDR 139 Base Case C: Open 12012 64887050 550 12413 6CORDOVA 500 C: Open 27550 14887055 151 27555 11487054 139 C: Open 27028 1148705 151 27055 11487055 151 C: Open 27552 1148705 5 152 27550 14887055 151 C: Open 27552 1488705 5 152 27550 14887055 151 C: Open 27552 1488705 5 152 27550 14887055 151 C: Open 27552 1488705 5 152 27550 14887055 151 C: Open 27552 1488705 5 152 27550 14887055 151 C: Open 27552 1488705 5 152 27550 14887055 151 C: Open 27552 1488705 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 14887055 5 152 27550 148870555 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 5 152 27550 1488705 2005 2005 2005 2005 2005 2005 2005 2	0.0930 37293 1144112005 161 27551 144112507 745 0.7935 27553 144112005 161 27551 14411507 745 0.7935 27553 144412405 161 27551 14411507 745 0.0000 18427 8PRADIS 500 18428 8HONTOOM 500 0.28802 18409 8JACKSON 500 18410 SJACKSON 161 0.40577 26555 1008FFVL, 18 26879 1008FVD 138 0.7739 7728 1104 RV 161 27095 1108 RVR 138 0.7739 7728 1108 RVR 138 27126 110410 C 138 0.7439 77059 1108 RVR 138 27126 110410 C 138 0.7439 77055 1108 RVR 138 27126 110410 C 138 0.7431 27055 1108 RVR 138 27126 110410 C 138 0.7431 27126 110410 C 138 27124 110410 C 138	11192.7 • 11249.3 • 11249.3 • 11249.3 • 11249.7 • 11249.7 • 1429.7 • 1429.7 • 1220.1
-0.08009 -43.1 -1	•	# # # # # # # # # # # # # # # # # # #	C:Open 27551 144TEG97 135 27551 14CTLG7 745 C:Open 27551 144TEG97 155 27551 144TEG97 345 C:Open 27551 144TEG95 161 27551 144TEG97 345 C:Open 27552 144TEG95 161 27551 144TEG97 345 C:Open 27152 05ERIDOV 138 27154 155HEKER5 138 C:Open 27152 05ERIDOV 138 27155 05CTRAUR 138 C:Open 27552 144ERNDS 161 27557 144TEM584 138 C:Open 27052 114R NV 161 27055 114R RVR 138 C:Open 27052 114R NV 161 27055 114R RVR 138 C:Open 27052 114R NV 161 27055 114R RVR 138 C:Open 27052 114R NV 161 27055 114R RVR 138 C:Open 27052 114R RV 161 27555 144RR NVR 138 C:Open 27052 114R RV 161 27555 144RR NVR 138 C:Open 27052 114R RV 161 27555 144R RVR 138 C:Open 27052 114R RV 161 27555 144R RVR 138 C:Open 27552 114R RV 161 27555 144R RVR 138 C:Open 27552 114R RV 161 27555 144R RVR 138 C:Open 27552 114R RV 161 27555 144R RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27556 144RR RVR 138 C:Open 27552 114R RVP 161 27555 144R RVR 138 C:Open 27552 114R RVP 161 27555 144R RVR 138 C:Open 27552 144R RVP 161 27555 144R RVR 138 C:Open 27552 144R RVP 161 27555 144R RVR 138 C:Open 27552 144R RVP 161 27555 144R RVR 138 C:Open 27552 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 27555 144R RVR 138 C:Open 27555 144R RVP 161 2755 144R RVP 161 2755 144R	0.7699 2344 0540NPT 7 138 26018 088RTNGT 138 0.09392 27525 1441L005 161 27542 11RQ TAP 141 0.79355 27553 1441L005 161 27542 11RQ TAP 141 0.79355 27553 1441L005 161 27542 11RG TAP 141 0.0000 18427 8PARADIS 500 18428 8MONTGOM 500 18427 8PARADIS 500 18428 8MONTGOM 500 0.007764 77028 11GR RV 161 27095 11GR RVR 138 0.7764 77028 11GR RV 161 27095 11GR RVR 138 0.7764 77028 11GR RV 161 27095 11GR RVR 138 0.7764 77028 11GR RV 161 27095 11GR RVR 138 0.7764 77028 11GR RV 161 27095 11GR RVR 138 0.7764 77028 11GR RV 161 27095 11GR RVR 138 0.7764 77028 11GR RVR 118 27126 11GR CC 138 0.74075 27095 11GR RVR 138 27126 11GR CC 138 0.74075 7706 11GR RVR 138 27126 11GR CC 138 0.74075 77126 11GR RVR 138 27126 11GR CC 138 0.74075 77126 11GR RVR 138 27126 11GR CC 138 0.74075 77126 11GR RVR 138 27126 11GR CC 138 0.74075 77126 11GR RVR 138 77126 11GR CC 138	11158.3 • 11158.3 • 1249.3 • 1249.3 • 1249.3 • 1449.7 • 1
			C:Open 20561 JAHLEON 345 27551 410012 7 345 C:Open 20513 0608KTW 118 25110 08KTRR 118 C:Open 20513 0608KTW 118 25110 08KTRR 118 C:Open 27551 144K1800 161 27551 144K1800 151 27551 144K1807 345 C:Open 27553 144K1800 161 27551 144K1807 345 C:Open 27552 144K1800 180 27541 1418KEW9 139 C:Open 27552 144K1805 50 18413 8CORDOVA 500 C:Open 18017 84AYW00D 500 18413 8CORDOVA 500 C:Open 27550 144KR055 161 2755 110R RVR 138 C:Open 27028 110R RV 161 27055 110R RVR 138 C:Open 27055	0.75549 27094 1108 5TL 118 27095 110R PUR 118 0.09300 27045 11ERML N 151 26018 08HWTHOT 130 0.7935 27055 144HLB005 161 27054 144HLB07 345 0.7935 27559 144HLB005 161 27561 144HLB07 345 0.7937 27054 11ERML N 151 27561 144HLB07 345 0.0000 18427 8PARADIS 500 18428 8HONTROM 500 0.0000 18427 8PARADIS 500 18428 BHONTROM 500 0.28802 18409 8AATHS0N 500 18428 9HONTROM 500 0.46677 26855 10MENTVL 132 2689 10GNEWH 138 0.77564 77028 110R RV 161 27095 110R RVR 138 0.77439 27095 110R RV 138 27126 110HLC 138 0.74478 27095 110R RVR 138 27126 110HLC 138 0.74478 27095 110R RVR 138 27126 110HLC 138 0.74478 27095 110R RVR 138 27126 110HLC 138 0.74075 27095 110R RVR 138 27126 110HLC 138 0.74075 27126 110HR RVR 138 27126 110HLC 138 0.74075 27126 110HR RVR 138 27126 110HLC 138 0.74075 27126 110HR RVR 138 27126 110HLC 138	11044.4 11158.3 11154.3 11144.3 1144.
4 -0,03808 -18.8 -58.0			Base Case C:Open 27561 LAWILGOT 345 27563 LGCOLE 7 345 C:Open 2651 104RIGOT 345 27563 LGCOLE 7 345 C:Open 27551 LAWILGOT 345 27563 LGCOLE 7 345 C:Open 27552 LAWILGOT 345 27561 LGCOLE 7 345 C:Open 27553 LAWILGOT 345 27541 LISHREWS 138 C:Open 27553 LAWILGOT 182 27541 LISHREWS 138 C:Open 27553 LAWILGOT 182 27541 LISHREWS 138 C:Open 27553 LAWILGOT 182 27541 LISHREWS 138 C:Open 27553 LAWILGOT 184 27571 LAWILGOT 345 C:Open 27553 LAWILGOT 184 27571 LAWILGOT 354 C:Open 27553 LAWILGOT 184 27553 LIGR RWR 138 C:Open 27553 LAWILGOT 184 27055 LIGR RWW 138 C:Open 27553 LAWILGOT 184 27055 LIGR RWW 138 C:Open 27553 LAWILGOT 184 27555 LIGR RWW 138 C:Open 27555 LIGR RWW 185 C:Open	- 0.5549 27094 11008 CC 138 27104 1138RR881 138 - 0.55549 27094 11008 STL 138 27059 11008 STR 138 0.7559 2444 15005 51008 15008 1008 1008 1008 1008 1	10099.1. 1108.4 • 11198.7 • 1198.7 • 1199.7 • 1199.7 • 1199.7 • 1199.7 • 14
			C:Open 27551 14MILSO7 345 27551 100RNDVM 138 Base Case C:Open 27551 14MILSO7 345 27551 14COLE 7 345 C:Open 27551 14MILSO7 345 27551 14COLE 7 345 C:Open 27551 14MILSO7 345 27551 14MILSO7 345 C:Open 27552 14MILSO7 515 27551 14MILSO7 345 C:Open 27552 14MILSO7 515 27551 14MILSO7 345 C:Open 27552 14MILSO7 18 27551 14MILSO7 345 C:Open 27050 11MILSTCM 120 27551 14MILSO7 345 C:Open 27050 11MILSON 345 2757 14MILSO7 345 C:Open 27050 11MILSON 345 2757 14MILSON 350 C:Open 27050 11MILSON 345 27550 14MIRSON 345 C:Open 27050 11MILSON 345 27550 14MIRSON 345 C:Open 27050 11MILSON 345 27550 14MIRSON 345 C:Open 27050 11MIRSON 345 27550 14MIRSON 345 C:Open 27050 11MIRSON 345 37550 14MIRSON 345 C:Open 27050 11MIRSON 345 37550 14MIRSON 345 C:Open 27050 11MIRSON 345 C:Open 27050 14MIRSON 345 C:Open 27050 14MIR	-0.6296 27254 1100FIC 07 138 27141 113FERFER 139 -0.15549 27024 1100FIC 07 138 27141 113FERFER 139 -0.75599 27024 1100FIC 07 138 27051 110R RVR 139 -0.09310 27025 112RAL N 151 27042 110R TAP 450 -0.79352 27553 144FLEGS 151 27541 144FLEGS 345 -0.79352 27553 144FLEGS 151 27541 144FLEGS 345 -0.2027 27553 144FLEGS 151 27541 144FLEGS 345 -0.2027 18427 8PARADIS 500 18428 8MONTOOM 500 -18427 8PARADIS 500 18428 8MONTOOM 500 -18427 8PARADIS 500 18428 8MONTOOM 500 -16427 8PARADIS 500 18428 8MONTOOM 500 -16427 8PARADIS 500 18428 8MONTOOM 500 -16427 8PARADIS 500 18428 100RTOOM 138 -0.7031 37025 110R RV 151 27085 110R RVR 138 -0.74075 27095 110R RVR 138 27126 110RIC C 138 -0.74075 27095 110R RVR 138 27126 110RIC C 138 -0.74075 27095 110R RVR 138 27126 110RIC C 138 -0.74075 27095 110R RVR 138 27126 110RIC C 138 -0.74075 27126 110RIC C 138 27141 115RERSER 138	1027.9
- 1			Base Case Gropen 2681 100ULLEY 136 26879 100RNDVH 138 Base Case Cropen 27561 14MILGOT 345 27563 140ULEY 1345 Cropen 27551 14MILGOT 345 27563 140ULEY 1345 Cropen 27551 14MILGOT 345 27563 140ULEY 1345 Cropen 27553 14MILGOT 145 27563 140ULEY 1345 Cropen 27553 14MILGOT 145 27563 141ULGOT 345 Cropen 27553 14MILGOT 152 27563 14MILGOT 345 Cropen 27553 14MILGOT 152 27541 14MILGOT 345 Cropen 27553 14MILGOT 152 27551 14MILGOT 345 Cropen 27563 14MILGOT 152 27553 14MILGOT 345 Cropen 27563 14MILGOT 152 27555 14MILGOT 345 Cropen 27563 14MILGOT 152 27555 14MILGOT 345 Cropen 27553 14MILGOT 152 27555 14MILGOT 37553 14MILGOT 37553 14MILGOT 152 27555 14MILGOT 37553 14	-0.6296 2685 1108 FW 18.1 2708 1108 FW 18.1 35 -0.6296 2685 1008 FW 18.1 2708 1108 FW 13.9 -0.6999 27126 110101 C 118 27141 1138 FW 13.9 -0.6999 27464 058 FW 13.9 27045 1108 FW 13.9 -0.6999 27464 058 FW 13.9 27045 1108 FW 13.9 -0.6999 27565 1404 FW 16.2 7764 1404 FW 13.9 -0.7935 2755 1404 FW 16.2 7756 1104 FW 13.9 -0.7935 2755 1404 FW 16.2 7756 1104 FW 13.9 -0.7935 2755 1404 FW 16.2 7756 1104 FW 13.9 -0.7936 1108 FW 16.2 7705 1106 FW 13.9 -0.7936 1702 1108 FW 16.2 7709 1108 FW 13.9 -0.7739 7709 1108 FW 16.2 7709 1108 FW 13.9 -0.7931 108 FW 13.9 7709 1108 FW 13.9 -0.7931 108 FW 13.9 7709 1108 FW 13.9 -0.7931 1108 FW 13.9 7715 1108 C 13.9 -0.7931 1108 FW 13.9 7715 1108 C 13.9 -0.7931 1108 FW 13.9 7715 1108 FW 13.9	895.4 1039.1 1106.3 11166.3 11169.3 11249.3 11349.7 1439.7
			Gase Case Glopen 20551 10CULLEY 138 26879 10GRNDVH 138 Base Case Clopen 20551 14MILSOT 345 27551 14CCLE 7 345 Clopen 20551 14MILSOT 345 27551 14CCLE 7 345 Clopen 27551 14MILSOT 345 27551 14MILSOT 345 Clopen 27551 14MILSOT 315 27551 14MILSOT 345 Clopen 27551 14MILSOT 315 27551 14MILSOT 345 Clopen 27059 11MILSTCH 138 27341 11MIRSWEN 138 Clopen 27050 11MILSTCH 138 27351 14MILSOT 345 Clopen 27050 11MILSTCH 138 27351 14MILSOT 345 Clopen 27050 11MILSTCH 138 27351 14MILSOT 345 Clopen 27050 11MILSTCH 138 27355 11MILSTCH 138 Clopen 27050 11MILSTCH 138 27351 14MILSTCH 138 Clopen 27050 11MILSTCH 138 27350 14MILSTCH 138 Clopen 27050 11MILSTCH 138 27550 14MILSTCH 138 Clopen 27050 11MILSTCH 138 Clopen 27050 14MILSTCH 138 Clopen 27050 11MILSTCH 138 Clopen 27050 14MILSTCH 138 Clo	-0.62960 26655 100RFFVL, 13 52657 100RFFVL, 151 -0.62569 26655 100RFFVL, 13 52657 100RFFVL, 151 -0.62569 27054 110RFFVL, 13 52657 100RFFVL, 151 -0.62569 27054 110RFVL, 13 52754 110RFVR, 135 -0.79310 27054 110RFVR, 13 52651 050RFVR, 135 -0.79315 27553 140RL505 161 27561 140RL507 345 -0.79315 27553 140RL505 161 27561 140RL507 345 -0.79315 27553 140RL505 161 27561 140RL507 345 -0.70000 19427 8PARADIS 500 18428 8PONTGOM 500 -0.0000 18427 8PARADIS 500 18428 8PONTGOM 500 -0.0007 18427 8PARADIS 500 18428 8PONTGOM 138 -0.78439 27028 110R RV 161 27085 110R RVR 138 -0.78439 27028 110R RVR 138 27126 110R10 C 138 -0.78439 27028 110R RVR 138 27126 110R10 C 138 -0.009775 37126 110RT C 138 17126 110R10 C 138 -0.009775 37126 110RT C 13 110RTSWB 138	889.48 889.48 11027.9 • 11027.9 • 11028.3 • 11158.3 • 11158.3 • 11154.3 • 11154.3 • 1124.9 • 1134.9 •
		ਜ ਜ	Base Case Graen Gr	77028 11GR RV 161 27029 11GR RVR 139 -0.62960 26855 10DRSRYUL 130 26857 10DRSRYUL 130 26859 11GR RVR 138 -0.6599 27924 11GR 571 139 27039 11GR RVR 138 -0.6999 27924 11GR 121 139 27039 11GR RVR 138 -0.79355 27553 14M1GGS 161 27551 14M1GG7 345 -0.79356 27553 14M1GGS 161 27551 14M1GG7 345 -0.79356 27553 14M1GGS 161 27551 14M1GG7 345 -0.79356 27553 14M1GGS 161 27055 11GR RVR 138 -0.74241 27028 11GR RV 161 27059 11GR RVR 138 -0.74241 27028 11GR RVR 138 27126 11GR RVR 138 -0.74241 27028 11GR RVR 138 27126 11GR RVR 138 -0.74241 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27028 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27126 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27038 11GR RVR 138 27136 11GR RVR 138 -0.74341 27136 11GR RVR 138 27136 11GR RVR 138 -0.74341 27136 11GR RVR 138 27136 11GR RVR 138	889.8 10.29.1 10.29.1 11.19.2 11.19
6 0.01476 4.3 16.7	'	, , , , , , , , , , , , , , , , , , ,	C.Open 27012 115HTPH 348 27142 118HTPH 138-18 Base Case Base Case C.Open 27651 105HTBN 136 56879 100RNDVH 138 1 Base Case C.Open 27551 14HTBN 136 56879 100RNB 138 1 C.Open 27551 14HTBN 136 51140 BASE 138 1 C.Open 27551 14HTBN 136 51140 BASE 138 1 C.Open 27551 14HTBN 141 23114 14HTBN 145 5114 C.Open 27551 14HTBN 15 5114 14HTBN 145 5114 C.Open 27551 14HTBN 15 5114 14HTBN 145 5114 C.Open 27551 14HTBN 15 5114 15HTBN 145 5114 C.Open 27551 14HTBN 15 5114 15HTBN 15 5114 C.Open 2755 14HTBN 15 5114 15HTBN 15 5114 C.Open 2755 14HTBN 15 5114 15HTBN 15 5114 C.Open 2752 14HTBN 15 5114 15HTBN 15 5114 C.Open 2755 14HTBN 15 5114	0.59632.77079 11CL/MRPR 138 27084 11GR STL 138 27028 11GR RV 138 27028 11GR RV 132 27024 11GR STL 136 27025 11GR RVR 132 27034 11GR STL 136 27035 11GR RVR 132 27034 11GR STL 136 27035 11GR RVR 132 27034 11GR STL 136 27035 11GR RVR 132 27035 11GR RVR 133 27035 11GR	888.1 888.8 888.8 888.8 888.8 11027.9 11158.3 11249.3 11349.7 11479.7 14
0.04515 117.9 1	'		C:Open 27041 11BONNIE 118 27141 11GHRENG 118 Base Case G:Open 2002 11SMITH 345 27142 11SMITH 118 Base Case C:Open 20681 10CULLEY 118 26879 10GRNUPH 118 Base Case C:Open 27561 14MILGOT 345 27563 14COLE 7 345 C:Open 27551 14MILGOT 345 27563 14COLE 7 345 C:Open 27552 14MILGOS 142 27563 14MILGOT 345 C:Open 27553 14MILGOS 162 27563 14MILGOT 345 C:Open 27563 14MILGOS 163 27563 14MILGOT 345 C:Open 27028 11GR RV 151 27055 11GR RVR 138 C:Open 27028 11GR RV 151 27055 11GR RVR 138 C:Open 27028 11GR RV 151 27055 11GR RVR 138 C:Open 27028 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RV 151 27055 11GR RVR 138 C:Open 27058 11GR RVR 151 27055 11GR RVR 138 C:Open 27058 11GR RVR 151 27055 11GR RVR 138 C:Open 27058 11GR RVR 151 27055 11GR RVR 138 C:Open 27058 11GR RVR 136 27055 11GR RVR 138 C:Open 27058 11GR RVR 136 27055 11GR RVR 138 C:Open 27058 11GR RVR 136 27055 11GR RVR 138 C:Open 27058 11GR RVR 136 27055 11GR RVR 138 C:Open 27058 11GR RVR 136 27055 11GR RVR 238 C:Open 27058 11GR RVR 236 27058 11GR RVR 238 C:Open 27058 11GR RVR 236 27058 11GR RVR 238 C:Open 27058	0.5952.72799 1102.WRR 139 27094 1108 KPR 139 77028 1108 KP 141.27029 1108 KP 141.27029 1108 KP 141.27029 1108 KP 151.27029 1108 KPR 139 0.6599 27049 1108 KP 139 27141 1138 KEW 139 0.6599 27049 1108 KP 139 2704 1108 KP 139 0.7935 27553 144 K1000 16.7754 16.7705 1108 KP 139 27126 1108 KP 13	043.5 • 888.1
75.2	•		C:Open 2702 1138NTR 345 27142 118NTR 138 C:Open 2702 1138NTR 345 2742 118NTR 138 Base Case Base Case C:Open 2681 10CULARY 136 26879 10GRNDVH 138 Base Case C:Open 27551 14NTSG7 345 2752 14COLE 7 345 C:Open 27551 14NTSG7 345 2752 14COLE 7 345 C:Open 27551 14NTSG7 345 2752 14COLE 7 345 C:Open 27551 14NTSG7 345 2752 14NTSG7 345 C:Open 27551 14NTSG7 18 2752 14NTSG7 345 C:Open 27561 14NTSG7 18 2752 14NTSG7 18 C:Open 27561 14NTSG7 18 2752 14NTSG7 18 C:Open 27561 14NTSG7 18 2752 14NTSG7 18 C:Open 27561 14NTSG7 18 2755 14NTSG7 18 C:Open 27561 14NTSG7 18 2755 14NT 138 C:Open 27561 14NTSG7 18 2756 14NT 138 C:Open 27561 14NTSG7 2756 14NT 138 C:Open 27561 14NTSG7 2756 14NT 138 C:Open 27561 14NTSG7 2756 14NTSG7 18NT 138 C:Open 27561 14NTSG7 2756 14NT	-0.6975 97126 110010 C 138 97141 115RRR88 138 -0.5553.77079 1102 R W 16. 27541 1102 R W 1.3 0.5553.77079 1102 R W 16. 27045 1102 R W 16. 27045 1102 R W 135 -0.5596 1102 R W 18. 37026 1102 R W 16. 27045 1102 R W 18. 37026 1102 R W 16. 27055 1102 R W 18. 37026 1102 R W 16. 27055 1102 R W 18. 37026 1104 R W 16. 27055 1102 R W 18. 30. 0.7659 27054 1103 F SLL 18. 27051 1104 R W 1. 130 C 0.7935 7755 14411005 16. 27561 1441507 345 0.7935 7755 14411005 16. 27561 1441507 345 0.7935 7755 14411005 16. 27561 1441507 345 0.7935 7755 14411005 16. 27561 1441507 345 0.7000 1847 57051 1108 W 16. 27561 1441507 345 0.7000 1847 57051 1108 R W 16. 27561 1471507 345 0.7000 1847 57651 1008 R W 16. 27691 1008 R W 15. 27691 1008 R W 16. 27055 1108 R W 15. 27055 1108 R W 16. 27055 1108 R W 16. 27055 1108 R W 170 C 138 0.7449 77055 1108 R W 16. 27055 1108 R W 16. 27055 1108 R W 170 C 130 0.7449 77055 1108 R W 113 27126 11010 C 138 0.7447 57126 1106 C 138 0.7441 1168 R W 11 116 2714 1168 R W 11 100. 0.9775 77126 1106 C 138 0.7441 1168 R W 11 116 2714 1168 R W 11 1008 C 130 0.09775 77126 1106 C 138 0.7441 1168 R W 11 8 77126 1108 C 130 0.74075 7705 1106 R W 111 1168 R W 111	619 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW; 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OW sav; MON; PHC,mon; SUBSYST; PHC,sub; CONT; PHC,con; EXCL; PHC,EXC

FCITIC MULTIPLE TRANSFER REPORT: G61P61OW+G61P61.TRA HUST TIELS: ... MUST 3.20 ... THU, JNN 31 2001 13:04 ... TIELS: 2004 WINTER PEAR ECAR BASE CASE (PHC 161 KV TIE OPEN) TIELS: G61P61OW+G61DF SERVER PEAR ECAR BASE CASE (PHC 161 KV TIE OPEN) Norlicor File: C:\BV-USERS\NOBOWY\PHC.mon CONTINGENCY File: C:\BV-USERS\NOBOWY\PHC.eub Exclude File: C:\BV-USERS\NOBOWY\PHC.eub

10.834	10.461	13.164	150.61	35.214	35.80t	32.01%	30.214	30.20	26.391	16.604	41.464	106.00	10.394	10.31	7.241	5.73	6.424	2.664		24.384	30.27	156.38%	154.761	13.314	140.47	37.182	33.711	30.56%	28.12%	28.114	112.04%	35.074	102.314	79.88	48.34	57.461	23.33%	41 654	9.334	11.48\$	3.494	3.49	0.924		106.6	12.491	14.71	110 010
775.3	1191.3	237.6		101.6	-38.6	94.8	-259.6	-258.2	136.2	321.7		;	1.77		-309.0	200.6	-149.9	234.2		-196.3	146.7	44.2	43.5	237.0	74.6	4.4.	101.6	94.8	-259.8	-258.4	-52.0	216.7	66.2	- 69-	56.5	115.9	-207.4	71.6	194.9	-197.0	234.2	234.2	207.3		780.5	1193.0	237.5	
793.9	1264.6	237.6	70.2	6.69	-36.7	88.6	-242.4	-240.7	143.3	279.6			ē.		-236.9	143.2	-44.7	92.0		-222.1	-156.4	52.1	51.0	237.6	70.2	69.9	97.5	88.8	-242.4	-240.7	-25.4	198.6	38.8	,	17.7	-7.2	-119.9	-26.5	27.7	-23.0	92.0	92.0	143.2	1.25	793.9	1264.6	237.6	
0.00623	0.05300	-0.02104	0.07787	0.07758	-0.01218	0.02424	-0.06456	-0.06456	-0.02229	0.06347			0.01485		-0.06347	0.04607	-0.07726	0.10360	0	-0.05322	-0.02319	0.04074	0.03992	-0.01863	0.07284	0.07256	0.02560	0.02333	-0.06157	-0.06157	-0.02365	0.08112	0.06379		0.04500	0.13142	-0.08493	0.08981	0.03929	-0.13142	0.10021	0.10021	-0.07209	0.04388	0.00334	0.04013	-0.01990	
1132.6	1724.0	239.9	132.2	132.2	-180.3	171.9	-307.3	-306.0	176.0	445.9	132.2	132.2	51.8	0.706-	-445.0	231.9	-202.5	419.7	419.7	-334.7	-286.2	-286.2	0.57	239.9	132.2	132.2	-189.3	171.9	-307.3	-306.0	176.0	289.9	63.9	75.0	-143.0	181.1	-243.0	142.9	105.8	286.1 -287 B	419.7	419.7	-202.5	231.9	1132.6	1724.0	239.9	
1214.2	1810.6	239.9	124.3	124.2	184.0	0.191	-287.2	1,285	188.6	387.2	70.2	69.9	30.0	242.4	-344.5	166.7	-73.6	164.9	164.9	-354.7	-305.0	0.505	67.9	240.6	124.3	124.2	-181.1	161.0	-287.2	-285.5	188.6	259.4	5.64 66	52.1	-36,6	1.67	-118.1	-16.7	31.4	124.0	164.9	164.9	-73.6	159.8	1214.2	1810.6	240.0	
C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	C:ODEN 18457 8WBNP 1 500 18468 SVOLUNTE 500 1	138	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	161 27095 11GR RVR 138	C:open 27095 11GR RVR 138 27126 110HIO C 138 2	C:Open 27012 ISMITH 345 2/142 ISMITH 156	The state of the party of the p	COOPER 2/039 LIMAKUBG 130 2/100 LIMARDA 2/100 LIMARDA 138 1	161 27617 14HENDR4	18691 SHOWL GR	Base Case	Base Case	C:Open 27061 11BONNIE 138 27141 115HREWS 138 1	Bane Case	Bade Cabe	C.Open 22012 115MTTH 345 27142 115MITH 138 1	C:Open 27561 14WILSO7 345 27563 14COLB 7 345 1	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	C:Open 27553 14WILSO5 161 27561 14WILSO7 345 2	C:Open 96150 7MCCRED 345 96162 7THOMHL 345 1	30593 FRKN 138	30593 FRKN 138 30650	C:Open 31221 MOBERLY 161 31222 MOBERLY 69.0 1	11CLVRPR 138 27144	27028 11GR RV 161	27028 11GR RV 161	345	C:Open 27095 11GR RVR 138 27126 110NIO C 138 2	C:Open 27095 IIGH KVK 138 Z/168 IICAIC C 20 I	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	C:Open 31609 RIVMIN 1 138 31933 WALLEN 1 138 1	JC FAIR 69.0		ELDON 161 96168 SBARNET	GUTHRIE 161 31239 MOREAU	C:Open 30957 LKSIDE 1 138 31024 MARIES 138 1	161 96168 SBARNET	ELDON 161 96168 SBARNET	MAD TAP 138 32301 MAD IND	C:Open 30957 LKSIDE 1 138 31024 MARIES 136 1	27561	C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1	C; Open 27240 likelTCH69.0 27259 110HTO C69.0 EQ	1 005 3TMC 8 800 18468 8VOLUNTE 500 1	C:Open 18457 8MBNP 1 500 18468 8VOLUNTE 500 1		
- A SECT TOLKE STOLEN CAN THE COLLEGE STOLEN TO THE COLLEGE STOLEN	-0.33337 18466	P8481 21FC/.U	0,77495 27028 11GR RV 161	0.77429 27028 11GR RV 161	0.75817 27095 11GR RVR 138	0.59587 27079 11CLVRPR 138	0,74073 27095 11GR RVR 138 27126 11OALO	-0.32916 27012 11SMITH 345 27142 11SMITH	-0.32916 27006 11HARDN	-0.42491 26851 10CULLEY 138	27028 11GR RV 161 27095	27028 11GR RV 161	-0.25368 27205	27012 11SMITH 345 27142 119MITH	- 27006 11HARDN		-0.15537 27094	0.79255 27553		1 151 JHWHIL 161 96354 STHWHIL 161 1	0.95083 30593 FRKN	0.95083 30593	0.71268 31221 MOBERLY 161 31222	0.70850 31221 MOBERLY 161	-0.07826 2/019 11860E L 101 27290-	0.77429 27028 11GR RV 161	0.59587 27079 11CLVRPR 138	0,75817 27095 11GR RVR 138 27126	0.74073 27095 11GR RVR	-0.32916 27012 ILBMITH 345 27142 ILBMITH	-0.42491 26851 10CULLEY 138 26879 10GRNDVW	-0.65304 31024 MARIES 138 96292 SMARIES		0.39921 31239 MOKEAU 161 31240 MOKERÚY	0.43126 30957 LK9IDE 1 138 31024		-0.58636 30532 ELDON 161 31400 09AGE	0.42842 30233 CALIF 161	-0.42811 30957 LKSIDE 1 138 31400 05895 -0.42811 30957 LKSIDE 1 138 31400 05895 N	0.50760 30266 CAMPBELL 138 31273	0,58636 30532 ELDON 161 96168 SBARNET	0.79255 27553 14WILSOS 161	0,79255 27553 14MILSO5 161 27561 14MILSO7	-0.57595 27126 110HIO C 138 27141 119HREWS		•	0.75412 18464 BBULL RU 500 18468	
0 03736	0.02735	0.06254	0.13800	0.13788	0.04499	-0.05065	0.04395	-0.07528	-0.07528	-0.03937	0.07787	0.07758	0.02533	-0.06456	-0.06456	-0.08849	0.05233	0.18571	0,18571	20150	-0.04523	-0.04523	0.06919	0.06878	-0.02176	0.12907	-0,05239	0.04328	0.04229	-0,07101	-0.04055	-0.09195	0.08611	0.08016	-0.14709	0.06357	0.18444	-0.12106	0.14608	0.12586	-0.18444	0.17964	0.17964	0.04934		0.02037	0.04852	
2000	-2984.0 -	-1384.7	56.7	57.7	156.4 +	161.9	247.3 *	266.4		320.9 R	796.2	802.9	860.8	1005.0	1011.9	1135.7	1247.4	1372.2	1372.2 •	4 2 7 0 7	. 6.717	-417.0 *	-194.5 *	-188.1	31.7 8	60.7	156.5 *	162.5 *	257.1 •	282.4	311.5 R	333.9 +			723.1 *			1031.0	1092.1 •	1287.6 *	1323.7	1418.7 *	1418.7 *	1457.4 *			-1785.0 *	
		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0		0.0001	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	7	1500.0	1500.0	
92	ALL B	ALI B	ALI. P	ALL	ALL B	ALL B	ALL	ALL_B	ALL_B	ALL_B	Arr.	ALL B	ALL B	ALL B	ALL_B	ACL_B	4rr B	ALL B	ALL B		GROUP_1B	GROUP IB	GROUP 18	GROUP_1B	GROUP_1B	GROUP_IB	GROUP 1B	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	ar anoan	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 1B	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_2B	200	47
From	G61P61	GEIPEI	GETRE	G61P61	G61P61	G61P61	G61P61	G61P61	G61P61	G61P61	Gelpel	G61P61	G61261	G61P61	G61P61	061P61	G61P61	G61261	061P61		G61P61	Gelper	G61P61	961P61	GGIPGI	G61P61	G61P61	GELPEL	G61P61	G61P61	G61P61	GELPEL	G61P61	G61P61	G61P61	GelPel	GelPel	G61P61	GelPel	G61P61	361861	G61P61	G61P61	G61P61	061P61	G61P61		

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
661P610W: 1500 MW SPLI BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P610W:ssv; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

€30 €30

118.164	35.184	24.361	27.198	20.621	20.584	14.86	2.914	22.77	16.671	14.941	14.94	5.504	2.88%	<u></u>	10.73	17.271	27.98%	163.078	162.864	30.45	27.371	23.003	22.971	15.314	164.01%	164.011	48.504	47.914	15.174	16.621	153,534	153.324	43.05%	50.36	50.614	36.08%	36.994	30.214	10 674	17.71	39.20%	42.55	16.251	16.184	8.354	11.06	3.224	4.614	6.02		16.278	16.284	76.92%	167.014
	-40.0	8.46	135.2	-260.1	-258.8	321.5	772.6		22.3	234.2	234.2	-308.8			1.077	237.6	72.5			101.6	94.8	-259.1	-257.7	136.3	34.6				2.4.6	1197.0			-38.6	101.6	35.8	94.8	-259.6	136.4	175.5	321.8	22.1				-309.2	200.2	167.8	-143.2	234.2	234.2	759.0	1198.9	-137.9	74.6
6.69	-36.7	8.88	143.3	-242.4	-240.7	279.6	835.1		9.4	92.0	92.0	-236.9			793.9	237.6	72.2	70.2	6.69	5.76		-242.4	-240.7	143.3	-16.6	-15.4			793.9	1264.6	70.2	6.69	-36.7	97.5	37.5	83.8	-242.4	- 240. / F 64.	159.7	3.672	9.4				-236.9	143.2	136.2	-81.4	92.0	92.0	793.9	1264.6	166.4	70.2
0.00100	-0.02056	0.02130	-0.02602	-0.04916	-0.04916	0.05960	-0.06247		0.01202	0.11809	0.11809	-0.05960			0,01435	-0.08030	0.01379	0.08408	0.08376	0.02338	0.02131	-0.05035	-0.05035	-0.01468	0.06505	0.06708			0.01455	0.10413	0.02408	0.07903	-0.01419	0.02942	-0.02012	0.02681	-0.07655	-0.07655	0.02496	0,06607	0.01644				-0.06607	0.05109	0.03832	-0.04584	0.10416	0.10416	0.02930	0.09820	-0.06298	0.08603
132.2	-189.3	171.8	176.0	-307.3	-306.0	445.9	1731.4	132.2	51.8	419.7	419.7	-445.0	-307.3	1306-	1132.6	238 8	141.8	132.2	132.2	171.8	171 9	-307.3	-306.0	176.0	445.9	6.99	132.2	132.2	1132.6	1724.0	135.2	132.2	-189.3	171.8	7.7.2	171.9	-307.3	-306.0	210.8	445.9	51.8	132.2	132.2	-306.0	-445.0	231.9	285.3	-170.6	419.7	419.7	1132.6	1724.0	197.6	132.2
124.2	-181.1	164.8	188.6	-287.2	5.285.	387.2	1831.9	70.2	6.64	164.9	164.9	-344.5	-242.4	-240.7	1214.2	130 0	141.2	124.3	124.2	164.8	1.191-	-287,2	-285.5	188.6	387.2	-32.0	70.2	6.69	1214.2	1810.6	239.9	124.2	-181.1	164.8	82.0	161.0	-287.2	-285.5	194.4	387.2	30.0	70.2	6.69	-240.7	-344.5	166.7	73.6	-100.6	164.9	164.9	1214.2	1810.6	1.991	124.3
11GR RV 161 27095 11GR RVR 138	11SMITH 345 27142 118MITH 138	11GR RVR 138 27126 11OHIO C 138		11HARDEG 138 27100 11HARDN 138	11HARDBG 138 27100 11HARDN	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	25 SCUMBERL 500 18430 BDAVIDEO 500	Wase Case	a transfer		C:Open 27553 14WILSOS 161 27561 14WILSOV 345 2	18691 5BOWL OR 161	Base Case	Dase Case	B PRIPP B	BWBNP 1 500	11W CLIF 138	11GR RV 161 27095 11GR RVR 138	11GR RV 161 27095 11GR RVR 138	11GR RVR 138 27126 11OHIO C		C:Open 2/095 118K KVK 138 2/128 110H10 C 138 1	11HARDBG 138 27100 11HARDN	14HENDR5 161 27617		C:Open 2/180 ILCANAL 69:0 2/260 ILFALLS 69:0 I		Base Case	C:Open 18018 8PHTPP B 500 18468 8VOLUNTE 500 1	SWENP 1 500 18468 BVOLUNTE	OSWAGENH 138 23711	C:Open 2/028 1108 RV 161 2/095 ALGR RVR 138 2	27012 11SMITH 345 27142 11SMITH	27095 11GR RVR 138 27126	24686 USRICHCT69.0	C:Open 24686 OSKICHCI69.0 24689 USIKEAIX87.0 1 C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	11HARDBG 138 27100 11HARDN	11HARDBG 138 27100 11HARDN			11BONNIE 138 27141	Base Case	Base Case	Base Case	C:Open 18012 SPARADIS 161 18691 5BOWL GR 161 1	11SMITH 345 27142	27561	27142 118MITH	27553 14WILSOS 161 27561 14WILSO7		1 005 STRUCTURE 8001 H dates stort many 1	18457 8WBNP 1 500 18468 BVOLUNTS	27017 11ARNOLD 161 27023 11DBLVIN	C:Open 27110 11LR TAP 138 29387 20JKSMIT 138 1
28 11GR RV 161	0.59587 27079 11CLVRPR 138	0.75817 27095 11GR RVR 138 27126 11OHIO C	0.74073 27095 11GR RVR 138 27126	030 -0.42491 26851 10CULLEX 138 26879 10CKNDVW 136 1 664 -0 33016 37617 11SMTH 346 37142 11SMTH 138 1	-0.32916 27006 11HARDN 345 27012 11SMITH	0.37320 18012 SPARADIS	0.60927 18422 8JVILLE 500 18430 8DAVIDSO	- 27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095	029 -0.25368 27205 11g VIEW69.0 29571 208158N69.0 1	0.79255 27553 14MILBOS 161 27561 0.79255 27553 14WILBOS 161 27561	-0.37320 18692 5E BOHL 161.18926 SABERD T	- 27012 11SMITH 345 27142 11SMITH	916 - 27006 11HANDN 345 27012 11SMITH 345 1	-0.35537 18468 BYOLUNTE 500 18469 SVOLUNTE	0.75412 18464 BBULL RU 500 18468	762 - 27019 IIBLOS L 161 29248 20861T C 161 1	0.72495 27028 13GR RV 161 27095	0.77429 27028 11GR RV 161 27095	0.75817 27095 11GR RVR 138 27126	0,59587 27079 IICEVRPR 138 27094	0.74073 27095	HIMET STILL SPE WIGHT TOUR STORE OF	-0.42491 26851 10CULLEY 138 26879 10GRNDVW	0,37320 18012 SPARADIS 161 18926	0.13908 1.00000 27180 11CANAL 69.0 27260 11FALLS 69.0 2	27028 11GR RV 161 27095 11GR RVR	- 27028 11GR RV	1 191 STRUTONS 69981 005 STRUMEN 800 18469 SVOLUME 161 1	0.75412 18464 8BULL RU 500 18468 8VOLUNTE	- 27019 11BLUE L 161 29248	0.14058 0.77495 27028 11GR RV 161 27095 11GR RVR 138 2	0.59587 27079 11CLVRPR 138 27094 11GR STL	0.75817 27095 11GR RVR 138 27126 11OHIO C	1.00000 24686 05RICHCT69.0 24689	1941 1.00000 24686 05RICHCT69.0 24690 05NWHTH 69.0 1	-0.32916 27012 11SMITH 345 27142	-0.32916 27006 11HARDN 345 27012 115MITH	-0.42491 26851 10CULURY 138 26879	0.07084 22570	29571	- 27028 11GR RV 161 27095	- 27028 11GR RV 161 27095 11GR RVR	27012 115MITH 345 27142 115MITH	.0.07655 - 27006 IIRARDN 345 27012 ILBMIH 345 I	110HIO C 138 27141 11SHREWS	-0.15537 27094 11GR STL 138 27095 11GR RVR	-0.28217 27099 IIHARDBG 138		0,79255 27553 14WILSOS 161 27561 14WILSO7		0.06848 -0.35537 18468 BVOLUNTE 500 18469 SVOLUNTE 101 1	-0.37001 27023 11DELVIN 161 29348 20GRNHLJ	0.10782 27023 11DELVIN 161 29215
72.7 * 0.10947 0.77429 270	50.04986			5 R -0,04030			œ			5 * 0.02029				0 -0.04916			7 R -0.02762			9 * 0.03954			40.06052	ps;				•			' æ				æ	·			' ex						٠,		•						س	~
				313.5						1074.5				0 1329.0	•	8		22.3					331.4			710.8				-649		0 55.7	٠				0 224.9				0 639.4					7115.6			0 1348.5			0 -1191.6		
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0021	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	0.0021	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1560.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0
GROUP 2B	GROUP_2B	GROUP_ZB	GROUP_2B	GROUP 2B	GROUP 2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 28	GROUP_2B	GROUP_ZB	GROUP_2B	gROUP_3B	group_38	GROUP_3B	ac anodo	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	410	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 48	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 48	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B		GROUP_5B	GROUP_5B	ac amono
G61P61 GRC	G61P61	G61P61	Gelpel	061261	Gelfel Gelpel	061P61	GEIPEI	961761	061P61	Gelpel	G61P61	961961	G61P61	961P61	GGIPGI	G61P61	G61P61	delpel	GG1P61	GGIPGI	961P61	061961	G61P61	061P61	G61P61	G61P61	G61P61 G61P61	061P61	;	Gelpel	G61P61	G61P61	GG1P61	GelPel	061761	G61P61	G61P61	GEIPEI	G61P61	G61P61	961961	G61P61	G61P61	G61P61	194190	361261	G61P61	G61P61	G61P61	GELPEL	1	961961	G61P61	361961

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OW sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

166.79\$	13.79%	57.17	49.984	42.124	43.478	48.778	48.85%	38.36%	42.174	32.681	14.261	23.831	191.944	187.081	29.171	10.584	107.794	19.134	25.624	25.60%	50.714	50.124	15.934	9.641	13.981	9.784	15.594	12.341	18.54	185.5	4.28%	3.324	3.324	0.02		127.224	27.681	28.181	24.671	20.961	18.51	10.294	13.014	28.264	34.094	2.25\$	15.634	11.974		146.941	39.224	36.75	33.524	31./85
i i	-163.3	-47.7	-113.4	139.3	-37.1	-259.4	-258.0	-121.9	0.201	9.55	120.0	136.9			121.0			322.0	;	2.33			11.3	91.2	169.8	-309.5	30.8	-142.7	34.6	129.9	56.4	234.2	234.2	395.3		74.6	101.6	.39.1	94.8	-259.8	135.4	781.8	321.0		-279.6	244.0	-183.1	6.706-		74.6	-38.8	101.6	94.8	- 259.8
	-164.4	-49.5	-117.1	143.9	-36.7	-242.4	-240,7	-110.3	7. 00	5.4.5	113.8	143.3	9.4-	-1.2	-89,2	183.2	7.6-	279.6					37.7	75.4	136.2	-236.9	24.5	-81.4	15.5	101.4	8.8	92.0	92.0	14.1		20.5	97.5	-36.7	88.8	-242.4	143.3	835.1	279.6		-33.7	259.2	-42.4	-236.9		70.2	-36.7	5.76	88.8	-242.4
0.08571	0.01568	0.01817	0.03721	-0.03510	-0.00328	-0.09575	-0.09575	-0.06320	0.01812	0.00570	0.01812	-0.01866	-0.02596	0.02596	-0.06320	0.021/3	-0.02173	0.06941		0.01857			-0.02795	0.01575	0.05337	-0.06941	0.00553	-0.05311	0.01632	0.02423	0.01632	56660'0	26660.0	0.01180		0.06624	0.05500	-0.01196	0.01960	-0.04878	-0.01868	-0.09850	0.05499		-0.24543	-0.01308	-0.11304	-0.05499		0.07616	-0.01448	0.02765	0.02520	-0.06793
132.2	-280.0	-71.8	-199 5	222.9	-189.3	-307.3	-306.0	-216.9	172.0	86.0	190.8	176.0	-58.5	57.4	-216.0	470.5	-58.5	445,9	-307.3	51.8	132.2	132.2	0.96-0	138.8	285.3	-445.0	52.1	-170.6	47.9	190.1	72.0	419.7	419.7	7.8.7	0.00	132.2	171.8	-189.3	171.9	-307.3	176.0	1731.4	445.9	132.2	132.2	360.0	-221.5	-445.0		132.2	132.2	171.8	171.9	-307.3
124.2	-281.7	-74.7	-206.8	232.0	-181.1	-287.2	-285.5	-205.3	167.6	80.1	182.7	188.6	-13.9	6.7	-184.2	437.5	-15.3	387.2	-242.4	30.0	70.2	6.69	26.1	111.7	204.6	-344.5	-410.2	-100.6	16.7	151.0	9.50	164.9	164.9	36.7		124.3	124.2	-181.1	161.0	-287.2	285.5	1831.9	387.2	70,2	6.69.9	387.8	-52.2	-344.5		124.3	124.2	164.8	161.0	-287.2
																																		66																				
27095	11KENTON 138 29566	27113 11LOUDON 138 29202	29386 20JKSMIT 161 29500	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 29386 20JKSMIT 161 29500 20POWELL 161 1	27012 11SMITH 345 27142 11SMITH	27099 11HARDBG 138 27100 11HARDN	27099 11HARDBG 138 27100	11101 8BAD CRK 500 11102 8JOCASSE	ZOMAYSVJ 138 29566 ZOSPURLK	C:Open 27095 11GK KVK 138 2/126 11CHIO C 138 1	2/041 1180NN18 138 2/141 118NN5NS 29432 20MAYSVJ 138 29566 20SPURLK	27560 14HENDRS 161 27617 14HENDR4	OSFULDER 138 23173 OSMILLBR	05FULLER 138 23173	8BAD CRK 500 11102	C:Open 23051 05FULLER 138 23173 05MILLSR 138 1 C:Onen 27004 11BBWN N 345 27015 11W LEXN 345 1	05FULLER 138 23173	SPARADIS 161 18691		C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1			23051 05FULLER 138	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	27012 11SMITH 345 27142 11SMITH	18012 SPARADIS 161 18691 SBOWL GR	C:Open 25691 085GROVE 138 25692 085GROVE 345 1	27012 11SMITH 345 27142 11SMITH	23051 05FULLER 138 23173 05MILLBR	29200 20AVON 345 29564 205PURLK	C:Open 27561 14MILSO7 345 27563 14COLE / 345 1	27553 14WILSOS 161 27561 14WILSO7	27553 14WILSOS 161 27561	0SDCHEMP69.0	C:Open 18012 SPARADIS 161 18926 SABERD T 161 1	27028 11GR RV 161 27095		27035 116K KVK 138 27128 110410 C	27095 11GR RVR 138 27126 11OHTO C	27099 11HARDBG 138 27100 11HARDN	11HARDEG 138 27100 11HARDN	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	SPARADIS 161 18691 SBOWL GR		10	z	11CORY T 161 27028 11GR RV	n 18012 SPARADIS 161 18691 SBOWL GR 161	Base Case	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27028 11GR RV 161 27095 11GR RVR 136 2	119R RVR 138 27126 110HIO C 138	27095 11GR RVR 138 27126 11OHIO C 138	1 8EL MIRANTI DOLLE SEL DEGRATIT GOODE TOTAL
1500.0 52.2 ° 0.15233 0.77429 27028 11GR RV 161 27095 11GR RVR 138 1	0.82125 27105 11KENTON 138 29566 20SPURLK 138 1	DAVIS 69.0 29319	DELVIN 161 27045	0.75817 27095 11GR RVR 138 27126 11OHIO C 138 1 0.32399 27034 1118 TAP 161 27045 11WI TAP 161 1	27094	-0,32916 27012 11SMITH 345 27142 11SM	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	161 18040	138 27093	0.74673 27095 IIGR RVR 138 27126 110HIO C 138 2	138 27157	138 26879	24077		11172	0,48510 24084 05PLYM.G69.0 24091 05N HAVH69.0 1	05FRANKN69.0 24084	18012 SPARADIS 161 18926	- 27012 118MITH 345 27142	-0.25368 27205 11E VIEW69,0 29571 20STEPHN	11GR RV 161 27095	11dR RV 161 27095	29196 20ARGTM 138 29198	-0.09687 27126 110HIO C 138 27141 11SHREWS 138 1	27099 11HARDBG 138 27100	18692 SE BOWL 161 18926 SABERD T	25404 08BUFTN1 138 25405 08BUFTN1	-0.16/41 240/5 USEBONKY69:0 29406 ZUBBON 89:0 I 0.07924 27861 11BONNIE 138 27141 11SHREWS 138 1	24070 05HITCHI69.0 24075	-0.19123 27093 11GODDRD 138 27137		0.79255 27553 14MILSO5 161 27561	0,79255 27553 14WILSO5 161 27561	1.88814 24088 05DCHEMP69.0 24091	0.41330 18012 SPARADIS 161 18691 SBOWL GR 161 1	0.77495 27028 11GR RV 161 27095 11GR RVR	161 27095	0.75817 27095 11GR RVR 138 27126 11GH1G C 138 1	138 27126 110HIO C	-0.32916 27012 11SMITH 345 27142 11SMITH	-0.32916 27006 11HARDN 345 27012 11SMITH		0.6092/ IB422 6JVILLE SUU 16430 6LAVILLSO 0 17120 18612 5PARADIS 161 18926 SABERD T	- 27028 11GR RV 161 27095 11GR RVR	- 27028 11GR RV 161 27095 11GR RVR		0.33926 27025 11EARL N 161 27042 11RQ TAP	-0.37320 18692 SE BOWL 161 18926 SABERD T	. 18034 SC-31 161 18035 SC-33 161 1	0.77495 27028 11GR RV 161 27095 11GR RVR	0.77429 27028 11GR RV 161 27095 11GR RVR		0.74073 27095 11GR RVR 138 27126 11OHIO C	
0.15233	0.02687	0.02930	0.07134	0.05690	-0.06033	-0.11332	-0.11332		0.02354	0.05559	0.02267	-0.03636	-0.10459	0,10459	-0.06320 -	-0.07084	-0.07084	0.0960.0	- 0.09575	0.03204	0.08603	0.08571	-0.12920	0.06809	0.08039	-0.09600	-0.02802	-0.06070	0.02672	0.03314	-0.10720	0.17916	0.17916	0.02926	56660.0	0.11739	0.11729	0.03637	0.03554	-0.05633	-0.05633	-0.03012	0 07780	0.06624			-0.13595	-0.07780	-0.24543	0.13495	0.13484	-0.05496	0.04568	
52.2	65.6 R	99.1 R	101.6 R	123.6 *	135.9 *	177.0 •	180.9	184.0 *	185.1	195,6 *	341.5	347.4 R	426.0 *	474.1	502.8 •	543.2 *	609.7	611.3	6.77.7	680.5 *	720.7	726.7	944.7 *	958.6 +	1003.5 *	1046.7 *	1064.8 •	1141.5	1169.0	1179.5	1202.3	1422.4	1422.4 *	1432.0 •	1498.7 *	66.7 .	. 8.79	193.4	305.9	356.1 •	364.0 •	419.4 R	2541.3 R	936.0	943.8	1001.8	1164.1 K	1291.6	1325.1	\$ 0.85	\$ 0.65	149.2	238.0 *	
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0051	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0			1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0				1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1
GROUP_5B	GROUP_SB	GROUP_SB	GROUP_5B	GROUP SB	GROUP SB	GROUP SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP, SB	BC 400AB	GROUP SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP 58	GROUP_5B	GROUP_58	GROUP_SB	GROUP SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP SB	GROUP_58	GROUP_5B	GROUP_SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_GB	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_GB	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_GB	GROUP_6B	GROUP_GB	GROUP 7B	GROUP_78	GROUP_7B	GROUP_7B	· GROOF '
G61P61	061P61	G61P61	961P61	G61P61	G61P61	G61P61	G61P61	961261	194190	G61P61	GETPEI	G61F61	G61P61	G61P61	G61P61	G61P61	GGIPGI	G61P61	1941961	G61P61	G61P61	G61P61	G61P61	G61P61	Gelper	061761	061P61	delpel delpel	Gelfel	G61P61	961961	G61P61 G61P61	961961	G61P61	G61P61	G61P61	GG1PG1	061261	GGIP61	G61P61	G61P61	G61P61	GG1P61	Gerper	GETPEL	G61P61	GGIPGI	G61P61	G61P61	961261	G61P61	G61P61	G61P61	19

(

136.3 23.874				22.0 32.971			-98.2 40.751	12.04	11.964			**		234.2 3.154		143.6 1.514	\$50.01 8.177		139,5 43,364				234.2 57.524			164.9 41.94%			109.2 10.111	~		222.4 10.061			219.5 5.90%		773.8 13.10%		74.6 152.78%				259.5 29.8/*		321.8 16.91%	42.14	22.2 31.124	#86.66 #68.6	309.2 7.551		-149.7 7.49\$	
	279.6			4.6			-41.9			, 0,				92.0		-11-	7 6.667	-	163.3	,			92.0		•	106.5			87.9			46.3 2			43.5		793.9 7			69.9			242.4 -2				\$.6		236.9 -3			
-0.02027					-0.04143		-0.06421		1,000	٠				0.09968	-0.04455	-0.04300	0.00582		0.01279			-0.01490	0.18455		·	0.06987	0.00557	0.10018	0.01905	0.01905	-0.01564	•	-0.05084		-0.07262		0.01094	'	0.07896	0.07867	-0.01125		-0.06371	-0.02323	0.06432		0.01490		-0.06432 -			
176.0		132.2	132.2	51.8	-154.1	-172.0	-172.0	-307.3	-306.0	-445.0	231.9	-68.3	-202.5	419.7	1.86-	-170.6	1132.6	1724.0	176.0	-175.6	242.2	-142.1	419.7	445.9	-224.0	224.0	132.2	168.8	142.2	142.5	-202.5	334.9	-445.0	334.5	-142.2	9:547:	1132.6	239.9	132.2	132.2	-189.3	171.9	-307.3	176.0	445.9	132.2	51.0	-307.3	-306.0	231.9		
198.6	387.2	70.2	6.69	30.0	-101.1	-73.4	-73.4	-242.4	-240.7	-184.2	166.7	21.1	-73.6	164.9	2.2	-100.6	1214.2	1810.6	188.6	1181.1	124.1	-122.3	164.9	164.9	-105.9	105.9	7.0	44.7	100.0	99.3	28.8	-13.7	-214.8	84.3	83.1	B. 691.	1214.2	239.9	124.3	124.2	-181.1	161.0	-287.2	188.6	387.2	70.2	30.0	-242.4	-240.7	166.7		
14HENDRS 161 27617 14HENDR4 138	Cropen illol BBAD CRK 500 illo2 8JOCASSE 500 i	SPARALLIS 181 18691 SBUT OR 181	Dage Cage	11BONNIE 138 27141 11SHREWS 138	ALBEMARL 100 11291 OAKBORO		BADIN 100 11192 ALBEMARL 100	Base Case		C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	11SMITH 345 27142 11SMITH	BADIN 100 11088 HIGH RCK 100	27561 14WILSO7 345 27563 14COLE 7 345	27553 14WILSOS 161 27561 14WILSO7		27012 11SMITH 345 27142 11SMITH	C.O. 18018 89HTPP H 500 18468 8VOLUNTE 500 1	BWBNP 1 500 18468 BVOLUNTE	26861 10ABBRWN 138 27617 14HENDR4 138	27012	27563 14COLE 7 345	25948 08GIBSON 345 26081 08GIB 138	14WILSOS 161 27561 14WILSO7 345	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	14HILSO7 345 27562 14REID 7 345	14WILSO7 345 27562 14RBID 7 345	11GR RV 161 27553	C:Open 27028 11GR RV 161 27553 14M1LSOS 161 1 C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	161 27616 14N.HARS 161	C:Open 18012 SPARADIS 161 27616 14N.HAR5 161 1	Bade Case C:Open 27028 11GR RV 161 27553 14WILSO5 161 1	27028 11GR RV 161 27553 14WIL905	C.Open 18026 SBARKLEY 161 27619 14HOPCOS 161 1	11GR RV 161 50011 #2-161	27028 11GR RV 161 27553 14WILSOS	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	18018 SPHIPP B 500 18468 SVOLUNTE	C:Open 18457 8KBNP 1 500 18468 8VOLUNTS 500 1	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	138 27126 110HIO C 138	27099 11HARDEG 138 27100 11HARDN 138	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	SPARADIS 161 18691 SBOWL GR	Въве Саве	Bade Cade C. Chan 27061 1180NNIE 138 27141 115HREMS 138 1			C:Open 18012 SPARADIS 161 18691 580WL GK LEL L C:Open 27012 115MITH 345 27142 115MITH 138:1		
1 10CULLEY 138 26879 10GRNDVW 138	SROBBINS 161 18040 SSANTEET	0.37320 18012 SPARADIS 161 18926 SABERU T 161 1	11GR RV 161 27095 11GR RVR	11B VIEW69.0 29571 20STEPHNe	ALBEMARL 100 11291 CAKBORO	0.47728 11192 ALBEMARE 100 11291 GARBORG 100 1 0.75758 11087 BADIN 100 11192 ALBEMARE 100 1	BADIN 100 11192 ALBEMARL	27012 11SMITH 345 27142 11SMITH	27006 11HARDN 345 27012 11SMITH	SNANTAHA 161 11172 SROBBINS	138	HIGH RCK 100 11226 ENRG U32	27094 11GR STL 138 27095 11GR RVR	14WILSOS 161 27561 14WILSO7	0.79255 27553 14WILBOS 161 27561 14WILSO7 345 2	11BONNIE 138 27141	1 151 STRILLOUP SALAT ONE STRATEGIES SALAT TESSE A	BBULL RU 500 18468 BVOLUNTE	10CULLEY 138 26879	11CLVRPR 138 27094 11GR STL	0.40677 26855 IONEMIVE 138 26879 IOGRNOVM 138 I	26078 080KLND 138 77871 16PETE	27553 14WILSOS 161 27561 14WILSO7	14WILSOS 161 27561 14WILSO7	-0.37320 18012 SPAKADIS 161 18926 SABEKU 1 161 1 -0.36522 27560 14HENDRS 161 27617 14HENDR4 138 1	10ABBRWN 138 27617 14HENDR4	11GR RV 161 27095 11GR RVR	0.26753 27028 11GR RV 161 27095 11GR RVR 138 1	27106 11KNOB C 138 27135 11POND C	11POND C 138 27144 11FIPTOP	- 26857 IONEWIVD 161 27552 14COLE 5 161 10 31267 27094 11GR STL 138 27095 11GR RVR 138 1	18026 SBARKLEY 161 27619 14HOPCOS	11GR RV 161 27553 14HILSOS	-0.37320 18692 SB BOWL 161 18926 SABERD T 161 1	-0.16831 26855 10NEWIVL 138 27079 11CLVRPR	-0.05225 26079 OBPRNCTN 138 26081 08GIB 138 1	-0,35537 18468 BVOLUNTE 500 18469	0.75412 18464 8BULL RU 500 18468 BVOLUNTE	. 27019 ILBE/UE L 161 29248 2086.IT C 161 1 c 77406 27777 1108 RV 161 27095 1108 RVR 139 2	27028 11GR RV 161 27095 11GR RVR	27095 11GR RVR 136 27126 11OHIO C	0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1	11SMITH 345 27142 11SMITH	27006 11HARDN 345 27012 11SMITH 345	-0.42491 26851 10CULLEY 138 26879 10GRNDVM 0.37120 18012 SPARADIS 161 18926 SABERD T	27028 11GR RV 161 27095	•	-0.25368 2/205 IIB VIEWS;U 233/I	27006 11HARDN 345 27012	-0.37320 18692 SE BOWL 161 18926	-0.09687 27126 110HIO C 138 27141 11SHREWS 138 1	
-0.03641	-0.02837 -	0.08708	0.07587	0.02592	-0.06119	-0.06114	-0.11246	- 0.06793	- 6,06793 -	-0.02837 -	-0.08708	-0.06972	-0.09285	0.17868	0.17868	-0.04838		0.04657	0.04248	-0.02527	-0.04210	-0.03323	0.33082	0.33082	0.07093	0.14137	0.13828	0.13776	0.03772	0.03772	0.17045	0.25487	0.55051	-0.07093		-0.05375	0.04451		-0.02452			•	-0.07459		-0.04089			0.02528	-0.06371		0.05192	
347.0 R	409.8	674.0	821.0	841.2 *	# 9·99B	869.2		955.2	961.8	1120.0	1202 8 *	1282.3	1388.1	1426.3	1426.3	1446.7			- 297 4	324.6	344.4	595.5 *		770.3 *	827,5 *	835.7	905.0	908.8	1120.2 *	1145.0 +	1149.3		1402.7.	1416.8 *		1484.0 *	-1833.2 *	8	0.7 8		_		249.8	274.9	309.0 R	785.3	791.8	862.5 +		1123.9	1257.2	
1500.0	1500.0	1500.0	1506.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	
1500.0 347.0 R -0.03641 -0.42491 2685	GROUP 7B	GROUP_7B	GROUP 78	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B		GROUP_7B			GROUE_BB	GROUP_BB	GROUP 8B	GROUP_8B	GROUP BB	GROUP_8B	GROUP_BB		GROUP_BB	GROUP_8B	GROUP_AB	GROUP 8B	GROUP_BB	GROUP_BB	GROUP SB	GROUP_8B	GROUP_BB	GROUP_8B	GROUP_8B	GROUP NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP, NB	GROUP NB	HN GILLOND	
G61P61	G61P61	G61P61	GELFEL	G61P61	G61P61	961261	Gelfel	061P61	GG1PG1	061P61	G61P61	961961	G61P61	G61P61	GGIPGI	G61P61	į	1941961	1961961	194190	G61P61	GEIPEI	d61.P61	G61P61	061261	G61P61 G61P61	361P61	G61P61	Gelfel	G61P61	G61P61	GEIPEI	G61P61	G61P61	G61P61 G61P61	G61P61	G61P61	194196	G61P61	G61P61 G61P61	G61P61	1941961	G61P61	061P61	061961	GEIPEI	194190	061P61	G61P61 G61P61	G61P61	1961	

Case: 2004 WINTER PEAK ECAR BASE (PHC 161 KV TIE OPEN)
G6IP6100N: 1500 MW SPLT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P610W.sav, MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

.

10 1	96.9	146.941	146.741	36.641	38.681	33.411	32.184	32.18%	23.80%	10.791	16.091	39.391	38.854	32.77	12.304	12.21	12.574	12.401	19.964	19.964	6.731	6.924	1.481	4.754	2.811	2.814	1.404
AlBade	234.2	74.6		101.6	-38.7	94.8	-259.7	-258.3	136.3	-121.9	321.4			22.0			-104.3	-104.3	-98.2	-98.2	-308.6	200.5	-121.0	-150.5	234.2	234.2	-143.6
inches	92.0	70.2	6.69	97.5	-36.7	88.8	-242.4	-240.7	143.3	-110.3	279.6			4.6			-68.4	-68.4	-41.9	-41.9	-236.9	143.2	-89.2	-44.7	92.0	92.0	-81.4
gros	0.10563	9.07605	6,07577	0.02758	-0.01349	0.02513	-0.06846	-0.06846	-0.02032	-0.02333	0.06204			0.01498			-0.03267	-0.03262	-0.05059	-0.05059	-0.06204	0.04753	-0.02333	-0.07580	0.09915	0.09915	-0.04284
Esmie	419.7	132.2	132.2	171.8	-189.3	171.9	-307.3	-306.0	176.0	-216,9	445.9	132.2	132.2	51.8	-307.3	-306.0	-154.1	-154.2	-172.0	-172.0	-445.0	231.9	-216.0	-202.5	419.7	419.7	-170.6
bradhtet timte	164.9	124.3	124.2	164.8	-181.1	161.0	-287.2	-285.5	188.6	-205.3	387.2	70.2	6.69	30.0	-242.4	-240 7	-101.1	-101.0	-73,4	-73.4	-344.5	166.7	-184.2	-73.6	164.9	164.9	-100.6
1 Contabancy Contabancy Contabancy Name (Name of Street	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	C:Open 27012 11SMITH 345 27142 119MITH 138 1	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	C:Open 11101 8BAD CRK 500 11102 8JOCAS9E 500 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	Base Case	Base Case	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	Base Case	Buse Case	C:Open 11192 ALBEMARL 100 11291 OAKBORO 100 1	C:Open 11192 ALBEMARL 100 11291 OAKBORO 100 2	C:Open 11087 BADIN 100 11192 ALBEMARL 100 2	C:Open 11087 BADIN 108 11192 AUBEMARE 108 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	C:Open 27012 11SMITH 345 27142 119MITH 138 1	C:Ogen 11101 8BAD CRK 500 11102 8JOCASSE 500 1	27561 14WILSO7	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 2	C:Open 27012 11SMITH 345 27142 11SMITH 138 1
LOST	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 2	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2	11GR RV	11GR RVR	0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1	0.74073 27095 11GR RVR 138 27126 11OHTO C 138 2	-0,32916 27012 11SMITH 345 27142 11SMITH 138 1	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	LOCULLEY	11172 SROBBINS 161 18040 SSANTEET 161 1	0.37320 18012 SPARADIS 161 18926 SABERD T 161 1	27028 11GR RV 161 27095 11GR RVR 138 2	11GR RV	-0.25368 27205 11E VIEW69.0 29571 20STEPHN69.0 1	27012 11SMITH 345 27142 11SMITH 138 1		ALBEMARL		BADIN 100 11192 ALBEMARL	BADIN	SE BOWL	-0.09687 27126 110HIO C 138 27141 115HREWS 138 1				14WILSOS 161	
A CL	0.18935	0.13477	0.13466	0.04663	-0.05428	0.04556	-0.07932			•	0.08696	0.07605 -	- 77570.0		-0.06846 -	-0.06846 -	-0.04825	-0.04821	-0.08862	-0.08862	-0.08696	0.05416	- 55550 0-			0.17774	-0.04826
Earl Control	1345.9 *	. 1. 45	. 4.65	150.8 *	151,1 +	238.6 +	252.9 *	258.5 *	347.9 8	4.98.5	674.9	615.3	822.1	843.4 *	947.8	954.3	1099.0	1102.1 •	1113.2 *	1113.2 *	1155.6	1205.1	1362 1	4 9 905	1633 8 +	1433.8 *	1450.3 *
Transfer	8	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0 0051	0.0021	1500.0	1500.0	1500.0		0.00	0.001	0 0051	1500.0
4	GROUP_NB	as dilogs	GROUP SB	GROUP 3B	GROUP SB	GROUP SB	as daoab	BS droap	GROUP SB	es doore	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	ES GROUP	GROUP SH	as diloan	GROUP SB	GROUP SB	GROUP SB	RE GEORGE	as alloas	GE GEORGE	as alload	as alload	GROUP_SB
and a	194190	1961	061261	961761	061261	961P61	G61P61	G61P61	G61P61	196161	GGIPGI	061761	061P61	194190	G61P61	G61P61	196190	1961	מפושפו	361961	G61P61	1941961	1961	191100	10110	2017001	G61P61

Scenario 6

Case: 2004 SUMMER PEAK ECAR BASE CASE G61P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500 LF Case: G61P00_S:sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: G61P00 S+UNIT2 G61.TRA

MUST Title:	*** MUST 3.20 *** WED, JAN IU ZUGA	WED, JAN 16	2001 1/145									
TETTET	SUPPLIES FRANCE STATE CHARGE CHARGE	A BOUND BARRIES		1								_
Titlez	deligo s: IPOO	W SPLII BB.	IMEEN GREEN	TOT ATM	W PARADISE SUC							-
Monitor File	Monitor File: C:\BV-USERS\NOBODY\PHC.mon	. mon										_
	one disconnection of the											_
Contingency File:	contingency File: C:\BV-USERS\NOBODI\PHC.con											
Subsystem File:	C:\BV-USERS\NOBODY\PH.	dub.			_	-						
BIOG - PTC - PTCT- PTCT-	-											
Reporting the first 200 violations	400	transfer										2000
1			1888									
A COLUMN TO SERVICE STATE OF THE PARTY OF TH				å (P	LOUP - Affin - Bing cany Cunalization are	Land Continues C	Presnie:	48.5E				20
UNITZ G61	ALL B	750.0 15	1	1	26855 10NEWTVL 138 26879 10GRNDVW 138	27617 14HENDR4 138	-176.9	-176.0	0.03040			24.234
UNIT2_061			·		10CULLEY 138 26879 10GRNDVW 138	10CULERY 138 26875 10ANGMRD 138	176.6	175.5	-0.02969	162.3	151.2 1	12.364
UNIT2_061		750.0 144	144.4 * 0.		11GR RV 161, 27095	11GR RV 161 27095 11GR RVR 138	17.1	116.7	0.15459			400
UNIT2 G61	ALL_B				8 11GR RV 161 27095	11GR RV 161	977.0	116.7	0,15401			24.728
UNIT2_061		750.0 195			-0.31949 27109 11LBITCH 138 27240 11LBITCH69.0 1	11BONNIE 138 27141 11SHREWS 138	72.1	78.9	0.00908	6.20		10.684
UNIT2_G61		750.0 204	204.9 * 0.	0.08881	0.75819 27095 11GR RVR 138 27126 11OHIO C 138 1	11GR RVR 138 27126 11OHIO C 138	139.6	157.8	0.05252	9 7 9		27.59
UNIT2 G61		750.0 247	247.4 * . 0.		0,74075 27095 11GR RVR 138 27126 11OHIO C 138 2	11GR RVR 138 27126 11OHIO C 138	136.4	157.8	0.04786	7.67		20 428
UNIT2_G61		750.0 273	273.3 * -0.	-0.03507	0.31949 27109 11LEITCH 138 27141 11SHREWS 138 1	C:Open 27061 11BONNIE 138 27141 115HREWS 138 1	-72.2	81.8	80600.0-	4.00-		36 574
UNITZ_G61				Ċ	110HIO C 138 27141	C:Open 27240 11LEITCH69.0 27259 110HIO C69.0 EQ	132.3	264.0	2,0000	202		38.014
UNITZ_061					11GR RVR69.0 27271	11GR RV 161	0.65	B . C 6 1 1	-0.05081	-53.6		20.08
UNITZ_G61					11CLVRPR 138 27094			40.6	0.02867	£.		39.124
UNITZ_061			•		11E VIEW69.0 29571	act previous 1912 att givnest 190	2.54	116.7				36.634
UNIT2_D61				0.15459 -	11GR RV 161		£3.3	116.7			r.	36.084
UNITZ_G61				•	11GR RV 161 27095	AFI WUNDADOL PERSE	-121.0	-148.4	-0.07457	-18.8	-55.5	9.78%
UNIT2_d61					TONEWIVE 138	C.O. 22051 11BONNIE 138 27152 11W LEBA 138 1	41.3	59.0	0.01809	36.1		14.814
UNITZ G61					27042	27028 11GR RV 161	-81.6	-181.6	-0.16295	9.99-	149.4 2	26.281
UNITZ G61					S LIBARD N 151		117.9	164.8				12.694
UNITZ G61				- 75000.0	4 1100 cTl. 138 27095	C:00en 27561 14MILSO7 345 27563 14COLE 7 345 1	73.7	-179.0	-0.15410	-43.1		20.674
UNITZ GET		100 0 001	٠.		14WT-905 161 27561	14WILSOS 161 27561 14WILSO7 345	181.9	419.7	0.20534	101.4	234.1	9.124
ONITZ GET					14WILSON 161 27561 14WILSON		161.9	419.7	0.20534	101.4	234.1	9.124
UNITZ GEI					TABLE TO THE TABLE TO COUNTY OF THE PROPERTY O	11CORY T 161	32.4	6.36	0.08799	9.6	67.3	9.534
UNITZ GEI				68960.0	TIPOMILE 136 27141 11SUDEWS	11LEITCH 138	-82.6	-140.5	-0.08134	6.65-	-115.2	4.284
UNIT2 GG1						27020 11CORY T 161	37.8	73.8	0.01298	33.5	42.4	4.724
UNIT2_G61						The state of the s	9.99-	-181.6				3.97t
UNITZ GE1				-0.16295 -	A 11GR RV 161	C:Open 27020 11CORY T 161 27028 11dR RV 161 1	101.5	257.2	0.17598	85.7	214.8	1.394
UNIT2_061	ALL_B	750.0	. 5.557		TION NA TOT							
					161 11MHHT1 161 96254 5THWHT1. 161 1	C:Open 96150 7MCCRED 345 96162 7THOMHL 345 1	-357.3	-334.7	-0.05643	-209.4		16.374
UNIT2_G61		*			WWW.	27560 14HBNDRS	-176.9	-176.0	0.03195	-128.7		24.814
UNITZ G61				28650.0	SCHOOL BELL VALUEDA	26851 10CULLEY 138 26875	176.6	175.5	-0.03127	162.3		13.034
UNIT2_061			33.3 K		1100 01 161	27028 11GR RV 161 27095	17.1	116.7	0.14735	43.5		133.884
UNIT2_G61				0.26112	STATE OF THE COST THE WAS THE BUS THE	27028 11GR RV 161 27095	77.0	116.7	0.14680	43.3		133654
UNITZ G61					10 MOREAU 161 31240 MOREAU 69.0	30677 GUTHRIE	9 74.2	83.8	0.04020	60.5		37.384
UNIT2 GG1				0.00.0	131.RTTCH 138 27240	11BONNIE 138 27141	72.1	78.9	0.00877	52.9		23.87
UNITZ_061		750.0 201	20T.02		11GR RVR 138 27126		139.6	157.8	0.05137	82.6		29.751
UNIT2_del					5 11GR RVR 138 27126 11OHIO C 138	11GR RVR 138 27126	136.4	157.8	0.04681	75.2		107.47
19571110	ar alloan				9 11LRITCH 138	IE 138 27141 115HREWS 138	-72.2	-81.8	-0.00877	1.56		23.178
INTTO G61				•		345 96142	-150.8	-1/5.7	-0.09/84	20.2		46.68%
UNIT2 G61					.6 11GR RVR69.0	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1		0 Y	0.08626	117.9		25.461
UNIT2 061	GROUP_1B				6 110HIO C 138	11LEITCH69.0 2/259 ILOHIO Ces.o	-141.9	-190.8	-0.05531	-53.6	-76.5	20.894
UNIT2_G61	GROUP_1B		•		79 11CLVRPR 138 27094	COOPER Z/OLZ LISMAIN 349 Z/LTZ LISMANS 238 1	19.5	40.6	0.02785	4.3		36.744
UNIT2_061	GROUP_1B			•	-0.25375 27205 118 VIEW69.0 29571 2051EFHN59.0 L	C.Onen 27020 11CORY T 161 27028 11GR RV 161 1	-81.4	-181.6	-0.17800	9.99-		33.67
UNIT2_061	GROUP_1B		•		0 2	C:Open 96162 7THOMHL 345 96354 5THWHIL 161 1	245.0	287.6	0.07912	163.2	222.0	7.854
UNITZ_G61	GROUP_1B			0.08691	TOWNSHITTE 338 26857 TONEWILL	C;Open 26851 10CULLEY 138 26879 10GRNDVM 138 1	-121.0	-148.4	-0.07531	-18.8	0.95-	# C 9 .
UNIT2_061	GROUP_1B	750.0 495	493.9	- 1		Base Case	43.5	116.7		,	0 88	35.916
UNITZ G61	GROUP TB				MOBERLY 161	161 31222 MOBERLY 69.0	35.0	74.7	0.04637			25.184
TOO TIME	at alload					MOBERLY 161 31222	B. 5		36580	-2.3		19.301
mitty des	GROUP 18		•			WALLEN 1 138	7		0.03236	33.1		0.441
INITE OF	GROUP 18				0.29106 30026 APCH FLT 161 30027 APCH FLT69.0 1	C:Open 30677 GUTHRIE 161 31239 MOREAU 161 1		?				-
							-176.9	-176.0	0.03419	-128.7		24.874
UNIT2_G61	GROUP_2B		œ		10NEWTVL 138	26875 10ANGWND 138	176.6	175.5	-0.03368	162.3		13,821
UNITZ 961	GROUP_2B		×		0.16225 26851 10CULLSY 138 26879 10GRNDVW 138 1	27028 11GR RV 161 27095	17.11	116.7	0.13743	43.5		122.581
UNITZ_G61	GROUP 2B			0.24354	11GR RV 161	27028 11GR RV	0.77	116.7	0.13691	63.3		144.5
UNIT2_G61	GROUP 2B	.0.067	0		11LEITCH 138	27061 11BONNIE 138 27141 11SHREWS 138	72.1	78.9	0.00836	92.9		26.66
UNITZ G61	GROUP_ZH				11GR RVR 138	.C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	139.6	157.8	0.04753	9.75		23.75%
UNITZ G61	ar alvan				11GR RVR 138	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	136.4	157.8	7555.0			-
חשונק המי												

Case: 2004 SUMMER PEAK ECAR BASE CASE GGIP00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500 LF Case: GGIP00_S.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

1

17.45%		22.171	20.124	30.71	25.601	25.09	10.861	8.78¥	15.784	13.814	13.814	7 25 2	7.426	2.024	18 95	9.144	154.834	154.594	23.27	25.80%	19.034	24.204	24.664	43.794	43.224	35.024	7 7 9	10.58%	10.654	19,994	15.22	456.8	1.954	0.33%		17.341	13.394	140.934	140.701	32.67	29.624	22.061	29.001	39.524	43.941	166.11	35.951	35.41%	14.841	26.994	1.618	9.73	9.73%	6.674	10.324
975.6	6.5.5	146.8	-78.7	9 9			45.4		-127.4	234.1	234.1	5.09-	9.79	;		161.2			8. 6	87.1	9.55.	146.8	22.0	725.1		36.6	-105.6		44.8	-128.7	-149.0	234.1	234.1	-115.1		155.2	161.2	65.8	65.7	54.7	. 87.1	-55.5	146.8	53.6	5.91	-55.5		45.1		-149.3	-128.6	234.1	234.1	-115.2	67.2
-53.1	20.2	117.9	53.6		9 9 9		36.1		-43.1	101.4	101.4	-18.8	 			162.3	43.5	43.3	52.9	42.6	-53.1	117.9	20.2	. 1		4.3	- 53.6		36.1	-43.1	9.99-	101.4	101.4	-59.9		168.0	162.3	43.5	43.3	6. 23	75.2	-53.1	117.9	20.2	5. 6. 5. 6.	-18.8		36.1		-66.6	-43.1	101.4	101.4	6.65-	9.6
-0.00836	0.01118	0.08182	-0,05973	0.02612	-0.15822		0.01692		-0.14259	0.21999	0.21999	-0.06211	0.08620	0.0		-0.02213	0.16574	0.16512	0.00902	0.05013	-0.00902	0.08579	0.00445	0.02563		0.02761	-0.03889	6.6.6.	0.01562	-0.15294	-0.14171	0.20481	0.20481	-0.07677		0.02534	-0.03197	0.15354	0.15296	0.00950	0.05020	05600.0-	0.09514	0.01081	-0.05426	-0,08038		0.01884		-0,16431	-0.15938	0.00958	0.20727	-0.08564	
-81.8	54.6	164.8	-190.8	9.04	-181.6	116.7	0.65	164.8	-179.0	419.7	419.7	-148.4	6.56	-101.6		175.5	116.7	116.7	78.9	157.8	-81.8	164.8	54.6	143.3	116.7	40.6	-190.8	164.8	59.0	-179.0	-148.4	419.7	419.7	-140.5	-114.2	189.7	175.5	116.7	116.7	78.9	157.8	-81.8	164.8	54.6	-190.8	-148.4	116.7	59.0	164.8	-181.6	-179.0	164.6	419.7	-140.5	
-72.2	39.0	132.3	-141.9	19.5	61.4	. e.	41.3	117.9	-73.7	181.9	181.9	-121.0	32.4	9.7.8	;	176.6	77.1	0.77	72.1	139.6	-72.2	132.3	0.65	120.1	43.3	19.5	-141.9	117.9	41.3	7.67-	121.0	181.9	181.9	-82.6	-87.1	202.9	-176.9	77.1	77.0	72.1	139.6	-72.2	132.3	39.0	-141.9	-121.0	43.5	41.3	43.3	4.18-	-73.7	152.1	181.9	-82.6	
C:Open 27061 11BONNIE 138 27141 115HREWS 138 1	C;Open 27028 11GR RV 161 27042 11RQ TAP 161 1	27240 11LEITCH69.0 27259 11OHIO C69.0	en 27012 11SMITH 345 27142 11SMITH 138 1	27141 11SHREWS	11CORY T 161 27028 11GR RV 161		C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	Base Case	361 14WILSO7 345 27563 14COLE 7 345	14WILSOS 161 27561 14WILSO7 345	14WILSOS 161 27561 14WILSO7 345	10CULLEY 138 26879 10GRNDVW	C:Open 27020 11CORY T 161 27021 11CORYDO 161 1	C:open 27020 11CORY T 161 27035 11MORGNF 161 I Base Caue		C:Open 27560 14RENDRS 161 27617 14RENDR4 138 1	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR 138	11BONNIE 138 27141 11SHREWS 138	11GR RVR 138	27095 11GK KVK 138 27126 11OHIO C 138 27061 11BONNIE 138 27141 11SHREW9 138	27240 11LEITCH69.0	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1	C:Open 26013 08GRNTWN 138 26110 08MIER 138 1	Dase Cade	C:open 27061 11BONNIE 138 27141 11SHREWS 138 1	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	C.Open 27002 11ALCALD 345 27004 11BRWN N 345 I	Base Case C:onen 27061 11BONNIS 138 27152 11W LEBA 138 1	27563 14COLE 7 34S	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	27561 14WILSO/ 345 27563 14COLE / 545 27553 14WILSOS 161 27561 14WILSO7 345	27553 14WILSOS 161 27561 14WILSO7 345	C:Open 27109 11LEITCH 138 27141 11SHREWS 138 1	Base Cuse	23190 DSNPROCT 138	27560 14HENDRS 161 27617		161 27095 11GR RVR 138	27061 11BONNIE 138 27141 11SHREWS 138	27095 11GR RVR 138 27126 11CHIC C 138	C:Open 27095 11GR RVR 138 27126 110HIO C 138 1	110HIO C69.0	27042 11RQ TAP 161	345 27142 11SMITH 138	C.Open 27061 11BONNIE 138 27141 11SHREWS 138 1		C:Open 27061 1180NNIE 138 27152 11H LEBA 138 1	e Cade	Base Case C. Oner 27020 11CORY T 161 27028 11GR RV 161 1	14WILSO7 345 27563 14COLE 7 345	11ALCALD 345 27011 11PINEVI 345	pen 27553 14WILGOS 161 27561 14WILGO7 345 1	2/353 14815505 101 2/314 1188288 138	TILKITCH 138 2/141 LIBRARERS 130
9 0.31949 27109 11LEITCH 138 27141 11SHREWS 138 I C:Ope	0.21911 27216 11GR RVR69.0 27271 11RQ TAP69.0 1 C:Ope	110HIO C 138 27141 115HREWS 138 1	11CLVRPR 138 27094 11GR STL 138 1	11E VIEW69.0 29571 20STEPHN69.0 1	27025 11EARL N 161 27042 11RQ TAP 161 1	11GR RV 161 27095 11GR RVR 138 2		110HIO C 138 27141 11SHREWS 138 1	11GR STL 138 27095 11GR RVR 138 1	14WILSOS 161 27561 14WILSO7 345 1	14WILSO5 161 27561 14WILSO7 345 2	10NEWIVL 138 26857 10NEWIVL 161 1	11CORY T 161 27035 11MORGNF 161 1	0.45069 27020 11CORY T 161 27021 11CORYDO 161 1 C:Ope		10NEWTVL 138 26879 10GRNDVW 138 1	258/9 IUGRNDVW 138 I	11GR RV 161 27095 11GR RVR 138 1	11LEITCH 138 27240 11LEITCH69.0 1	11GR RVR 138 27126 110HIO C 138 1	0.74075 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open	27126 110HIO C 138 27141 115HREWS 138 1	11GR RVR69.0 27271 11RQ TAP69.0 1	23464 OSHUMI J 138 26018 OBHNTNGT 138 1	27028 11GR RV 161 27095 11GR RVR 138 2 Base	11E VIEW69.0 29571 20STEPHN69.0 1	27079 11CLVRPR 138 27094 11GR STL 138 1	11DIXDAM69.0 27295 11WC-DD 69.0 1	110HIO C 136 27141 11SHREWS 138 1	136 27095 11GR RVR 138 1	26857 10NEWTVL 161 1	-0.09930 27025 ILEARL N 161 27042 ILRQ TAP 161 1 C:Open	14WILSOS 161 27561 14WILSO7 345 1	11BONNIE 138 27141 118HREWS 138 1	11DIXDAM69.0 27295 11WC-DD 69.0 1	0.07024 22570 05SPORN 345 22987 05SPORNA 138 1 C:Op	10NBWTVL 138 26879 10GRNDVW 138 1	10CULLEY 138 26879 10GRNDVW 138 1	138 1	11LEITCH 138 27240 11LEITCH69.0 1	11GR RVR 138 27126 11OHIO C 138 1	27095 11GR RVR 138 27126 110HIO C 138 2	27109 11LEITCH 138 27141 11SHREWS 138 1	27271 11RO TAP69.0 1	27079 IICLVRPR 138 27094 11GR STL 138 1	27205 11E VIEW69.0 29571 20STEPHN69.0 1	-0.62960 26855 10NEWTVL 138 26857 10NEWTVL 161 1	29227 20BONNIE69.0 1	11GR RV 161 27095 11GR RVR 138 1	27126 110HIO C 138 27141 11SHREWS 138 1	136 1	11ALCALD 161 27027 11FARLEY 161 1	14WILSOS 161 27561 14WILSO7 345 2	14WILSOS 161 27561 14WILSO7 345 1	C:Op
-0.03183	0.04833	0.09205	-0.11638	0.04476	-0.19140	0.13743	0.13691	0.08182	-0.17807	0.39435	0.39435	-0.04091	0.09407	0.05038		0.04568	-0.02285	0.29347	0.03355	0.08477	0.08282	0.09650	0.03875	0.05442	0.16574	0.04709	-0.09942	-0.03600	0.08579	-0.18811	-0.04807	-0.16418	0.36714	-0.08062	-0.03663	0.02626	0.06302	-0.03281	0.27209	0.03686	0.09300	0.09086	-0.03686	0.10706	-0.12573	0.05192		0.15354	0.15296	0.09514	-0.19896	0.02021	0.37154	0.37154	
301.1	323.6 *	353.0	420.6	470.7 •	523.6 •	532.3	535.7	573.4	591.0 *	603.2 4	603.2 +	671.6	674.9	713.0	?	19.6 R	46.5 %	135.1	204.7 *	214.7 *	259.2	336.7	403.5	427.6 *	441.4	447.5 *	492.3 *	504.4 *	546.9	559.5	571.5 *	581.7 *	647.9	718.3 •	741.2	-503.6	14.2 R	32.4 R	145.4	186.3	195.7 *	236.2 *	260.0	303.5	. E. 68E	405.9	456.0 *	476.5	479.5	493.2	503.7	616.6	640.2 *	640.2 *	
750,0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	
GROUP 2B	GROUP 2B	GROUP 2B	GROUP 2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_ZB	GROUP 2B	GROUP 2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_28	and a second	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	gROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	a policio	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP	GROUP 4B	
UNITZ G61 GROUP 2B	UNIT2 G61	UNIT2 061	UNITZ G61	UNITZ G61	UNIT2_G61	UNIT2_061	UNITZ_G61	UNITZ GEI	UNITZ GG1	UNITZ G61	UNITZ G61	UNITZ 061	UNIT2_G61	UNIT2 661	195-71	UNIT2_G61	UNITZ_G61	UNIT2 G61	UNITZ G61	UNITZGEL	UNIT2_061	UNITZ_GEI	UNITZ G61	UNIT2 G61	UNIT2_G61	UNITZ_G61	UNITZ G61	UNIT2_G61	UNITZ_061	UNITZ_061	UNITZ_G61	UNIT2_661	UNITZ G61	UNIT2 G61	UNIT2_061	mirro aci	UNIT2_061	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNITZ G61	UNIT2 G61	UNIT2_G61	UNIT2_G61	UNIT2_661	UNITZ G61	UNITZ G61	UNITZ_G61	UNIT2_661	UNIT2_G61	UNITZ_G61	UNIT2_G61	UNITZ G61	UNIT2 G61	

CSSE: 2004 SUMMER PEAK ECAR BASE CASE
GG1P00_S: 1500 MAV SPLIT BETWEEN CREEN RIV 161 PARADISE 500
LF CASE: G61P00_S.Sav; MON: PHC.mon; SUBSYST: PHC, sub; CONT: PHC.con; EXCL; PHC.EXC

138 1 -141.4 -150.6 -0.050.8 -5.16 138 1 -141.9 -150.6 -0.050.8 -5.16 138 13 -141.9 -0.050.8 -5.16 138 13 -141.9 -0.050.8 -5.16 138 13 -141.9 -0.050.9 -141.8	27012 IISMITH 345 27142 27051 IIBONNIE 138 27141 27052 IIDONY T 161 27021 27052 IIBONNIE 138 26129 28651 IOCULLEY 138 26879 28651 IOCULLEY 138 26879 27020 IICONY T 161 27035	0.55672 27059 ILCURRS 105 27054 ILDR STIL 128 I0.55375 27265 ILR VIEWS 0. 059571 205TEMENS 9. 01 -0.55375 27025 ILRR RV 161 27059 ILRR RVR 138 I0.6525 27020 ILRR RV 161 27035 ILRR RVR 138 I0.6525 27020 ILRR RV 161 27035 ILRR RF 164 I0.65350 25655 INREWINE 138 59527 2080RNIES 9. 0 -0.65350 IRR RVR 151 27045 ILRR RF 164 I0.65350 ILRR RVR 151 27042 ILRR RF 164 I0.65350 ILRR RVR RVR 161 27043 ILRR RF 164 I0.65350 27020 ILRR RVR RVR IST RVR IST RVR IST RVR RVR RVR RVR RVR RVR RVR RVR RVR RV	6 • -0.10581 1 • 0.04314 0.149370 0.13970 0.13970 0.13970 0.04899 0.07056 0.06052		Group_eff 750.0	MIT2_061 WIT2_061 WIT2_061 WIT2_061 WIT2_061 WIT2_061 WIT2_061 WIT2_061 WIT2_061 WIT2_061
1 -141, -191	27012 IISMITH 345 27142 27051 IIBONNIE 138 27141 100 27052 IICONY T 161 27021 27052 IISONNIE 138 27152 25651 IOCULLEY 138 26679 1888888888888888888888888888888888888	0.5952 27079 ILCHWRPR 138 27094 -0.2575 77205 ILF VIEWS 0. 28971 -0.65235 77026 ILCHW W. 161 27095 -0.65235 77026 ILCHW W. 161 27095 -0.52560 28952 INCHWR I 18 28927 -0.62590 28953 INCHWIN I 18 28927 -0.62590 28953 INCHWIN I 18 27054 -0.62590 28923 INCHWIN I 18 27054	'			00.112_06.1 00.172_06.1 00.172_06.1 00.172_06.1 00.172_06.1 00.172_06.1 00.172_06.1
1 - 141.4 - 190.6 - 0.05506 - 551.6 1 191.5 40.6 0.05506 4.3 18.7 41.3 18.7 41.3 18.7 41.3 18.7 41.3 18.7 41.3 18.7 41.3	27012 IISMITH 345 27142 27051 IIBONNIE 138 27141 100 27050 IICONY T 161 27021 27051 IIBONNIE 138 27152 28651 IQCULLEY 138 26679	0.5953 73079 ILCLYRPR 138 27094 1104 STF0.5375 27205 ILC VIEW5.0 29571 2037ERHWA. 27028 ILOR PV 161 27095 ILOR RVR. 0.68325 27028 ILORY T 161 27095 ILOR RVR. 0.73160 27061 ILORNIE ILORY 2 162 2020NINER0.52960 26685 INNERFUL 138 26857 INNBSTUL. 27035 ILERRE N 161 27042 ILRG TAP	•••••			NN172 GG1 UN172 GG1
1 1 141.9 190.8 -0.05504 4.3 190.8 19.6 19.6 19.6 19.6 19.6 19.6 19.6 19.6	27012 11SONYIE 136 27142 27061 11BONNIE 138 27141 186 27020 11CONY T 161 27021 27061 11BONNIE 138 2752 26651 10CULLEK 138 26679	0.59532 27079 11CLVRPR 118 27094 1104 STF0.55375 27205 1104 RVB 161 27095 1104 RVB - 27028 1107 RVB 161 27095 1104 RVB 0.65235 27020 11CCRV T 161 27095 1107 RVB - 3.5250 27020 11CCRV T 161 27095 1107 RVB - 3.5250 27020 11CORV T 161 37095 1107 RVB - 3.5250 27022 11007RIE 181 25272 25090NIER	'. •• ••		·	00112_061 UNIT2_061 UNIT2_061 UNIT2_061 UNIT2_061 UNIT2_061
1 1 141.9 190.8 -0.05504 5.3.6 1 19.5 40.6 0.03494 4.3 1 19.5 116.7 43.5 116.7 43.5 136.7 1 22.4 95.9 0.11335 9.6	27012 115MTH 345 27142 27061 11BONNIE 138 27141 186 27020 11CORY T 161 27021	0.59532 27079 11CLVRPR 138 27094 1104 STL -0.55375 27205 110K PTENSE, 0.59571 203TEPHNN - 27028 110K RV 161 27095 110K RVR - 27028 110K RV 161 27095 110K RVR - 0.68235 27020 11CORY T 161 27055 11MORGNP	'. • • •			N112_g61 UNIT2_g61 UNIT2_g61 UNIT2_g61 UNIT2_g61
1 -141.9 -190.8 -0.05106 -53.6 -191.6 13.5 40.6 0.02494 4.3 43.5 136.7 41.9 136.7 41.9 41.9 136.7 41.9 41.9 41.9 41.9 41.9 41.9 41.9 41.9	27012 118MITH 345 27142 27061 11BONNIE 138 27141 186	0.59632 27079 11CLVRPR 136 27094 110R STL -0.25375 27266 11E VIEWG9.0 29571 20STEPHN 27028 110R RV 161 27095 110R RVR - 27028 110R RV 161 27095 110R RVR	• •			UNIT2_061 UNIT2_061 UNIT2_061 UNIT2_061
1 -141.9 -190.8 -0.054.9 4.1 1 19.5 40.6 0.02494 4.1 43.5 116.7	27012 11SMITH 345 27061 11BONNIE 138 18e	0.59632 27079 11CLVRPR 138 27094 -0.25375 27205 11E VIEW69.0 29571	•			UNIT2_G61 UNIT2_G61 UNIT2_G61
1 -141.9 -190.8 -0.05108 -5.16 1 13.5 40.6 0.02494 4.3	27012 118MITH 345 27061 11BONNIE 138	0.59632 27079 11CLVRPR 138 27094				UNITZ_G61 UNITZ_G61
1 -141,9 -190.8 -0.05108 -53.6	SAC UPTWOOL COCC			462.6		UNITZ G61
2.00- 0ET07:0- 4-1HI- 7-10-	C.Onen 27020 11CORY T 161 27028 11GR RV 161	0,33947 27025 11EARL N 161 27042				
EQ 132.3 164.8 0.07966 117.9	27240 11LEITCH69.0	-0,57605 27126 110HIO C 138				UNIT2 del
1 -72.2 -81.8 -0.00792 -53.1	C:Open 27061 11BONNIB 138 27141	0.31949 27109 11LEITCH 138 27141 11SHREWS 138		6.276.9 7.01F	GROUP_6B 750.0	UNIT2_G61
1 136.4 157.8 0.04275	C:Open 27095 11GR RVR	0.21911 2/216 11GR RVR05:0 2/2/1	3 * 0.06363			UNITZ_G61
161.1 39.0 54.6 0.01686 20.2	27028 11GR RV 161 27042	0.75619 27095 11GR RVK 138 2/125 11CHIO C				UNITZ G61
2 139.6 157.8 0.04691 82.6	11GR RVR 138 27126	-0.31949 27109				UNITZ GE1
138 1 72.1 76.9	C:Open 27028 11GK KV 161 2/095	0.77439 27028 11GR RV 161 27095			GROUP_GB 750.0	UNITZO61
138 1 77.0 116.7 0.13970 43.3 65.7	C:Open 27028 11GR RV	0 77504 27028 11GR RV 161 27095 11GR RVR 138		-		UNIT2 G61
138 1 176.6 175.5 -0.02604 152.5 15.5	C:Open 26851 10CULLEY 138 26875	0.16225 26851 10CULLEY 138 26879 10GRNDVW 138			•	UNITZ 961
138 1 -176.9 -176.0	C:Open 27560 14HENDR5 161 27617	0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	. R 0.04822	18.6	750.0	130 CTM
7 101	C:Open 27020 11CORY T 161 2/028 11GR KV	-0.36038 27028 11GR RV 161 27042 11RQ TAP 161 1	. 0.21095	.0 738.4	GROUP_SB 750.0	UNIT2_G61
9.99-		- 27025 11EARL N 161 27042 11RQ	,			UNITZ 061
161 1 37.8 73.8 0.01411 33.5	-	0.45069 27020 11CORY T 161 27021				UNITZ G61
161 1 32.4 95.9 0.08674	C:Open 27020 11CORY T 161	0.68235 27020 11CORY T 161 27035 11MORGNF 161		0.658.8	GROUP SH 750.00	UNITZ G61
345 2 181.9 419.7 0.20325 101.4 2	C:Open 27553 14MILSOS 161 27561	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 2				UNIT2_G61
138 1 25.1 -83.7 -0.0325 101.4 234.1	C:Open 23051 05FULLER	1.00000 29196 20ARGTM 138 29198 20ARGTM 69.0	•	.0 630.6	GROUP_SB 750.0	UNITZGEL
138 1 -82.6 -140.5 -0.09185 -59.9 1.55.5	C:Open 27109 11LEITCH 138 27141	0,42627 27061 11BONNIE 138 27141 115HREWS 138				UNIT2 G61
138 1 -8,3 -59.0	23051 05FULLER 138 23173	24084 05PLYM.G69.0	-0.20146	.0 549.3	GROUP_SB 750.0	UNIT2_G61
7 345 1 -73.7 -179.0 -0.16505 -43.1 -129.4	27563	0.33947 27025 ILEARL N 161 27042 LIRO TAP 161 1				UNITZ_G61
138 1 -12.5 -59.0 -0.02685 -9.8 -63.3	23051	0.48488 24084 05PLYM.G69.0 24091	0.09229			UNITZ G61
500 1 -175.8 -215.7 -0.08093	8BAD CRK 500 11102	- 11084 SNANTAHA 161 11172			GROUP SB 750:0	UNIT2_G61
138 1 -199.0 -213.1 -0.02361 -155.6	138 27101	0.32160 27061 ILBONNIE 138 2922/ 20BONNIE65-0 I.	0.03833	.0 462.2	GROUP_SB 750.0	UNIT2 G61
138 1 41.3 59.0 0.01806 36.1 44.5	Base Case C.oner 2705: 11H UBBA	116R RV 161 27095				UNITZ_G61
117.9 164.8	Base Case	110HIO C 138 27141				UNITZG61
	Base Gase	27028 1				UNITZ 961
1 -121.0 -148.4 -0.07947 -18.8 -53.7	26851 10CULLEY 138	26855 10NEWIVL 138 26857			GROUP 58 750.0	UNITZ G61
138 1 0.7 -58.7 -0.03210 5.1 -8.8	23051 05FULLER 138 23173	136 24077	0.12596	9388.6	GROUP_58 750.0	UNIT2_G61
138 1 141.9 -190.8 -0.04449 -53.6 -70.9	C:Open 27061 11BONNIE 138 27141 11SHKEWS C:Omen 27012 11SM/TH 345 27142 11SM/TH	27205 11E VIEW				UNIT2_061
138 1 -5.1 45.7 0.03210 -9.5 2.4	23051 05FULLER 138 23173	24067 05GRAYSB69.0 29198				UNITZ GG1
161 1 39.0 54.6 0.01002	27028 11GR RV 161 27042	27216 11GR RVR69.0 27271			QROUP 5B 750.0	
161 1 158.8 142.0 -0.02088 99.8 97.1	29386 20JKSMIT 161 29500	11LR TAP 161 27045 11WI TAP	~			UNITZ GE1
500 1 -193.5 -217.0 -0.08093 -88.8 -112.3	11101 68AD CRK 500 11102	SSANTERT	R 0.02154	290.1		UNIT2 G61
138 1 157.4 164.8 0.101/3 11 15 138.1 138.	C:Open 27012 11SMITH 345 27142 11SMITH	27126 110HIO C 138 27141	• ;			UNIT2_061 UNIT2_061 UNIT2_061 UNIT2_061
. 138 1 -72.2 -81.8	27061 11BONNIE 138 27141	27109 115EITCH 138 27141 11SHREWS				UNITZ_661 UNITZ_661 UNITZ_661 UNITZ_661
138 1 136,4 157.8 0.05341 75.2 87.1	27095 11GR RVR 138 27126 11OHIO.C	27095 11GR RVR 138 27126 11OHIO				UNITZ 961 UNITZ 961 UNITZ 961 UNITZ 961 UNITZ 961
138 2 139.6 157.8 0.05862 82.6 93.3	27095 11GR RVR 138 27126	0.07226 27023 LIDELVIN 161 27045 LIMI IAP 161 I n 75819 27095 1108 RVR 138:27126 110HIO C 138 1	R 0.02075	182.1		0M172_061 UNITZ_061 UNITZ_061 UNITZ_061 UNITZ_061 UNITZ_061
138 1 72.1 76.9 0.00988 52.7 71.7 73.2 -69.1	C:Open 27061 11BONNIE 138 27141 11SHREWS	27109 11LEITCH 138 27240				UNIT2_G61 UNIT2_G61 UNIT2_G61 UNIT2_G61 UNIT2_G61 UNIT2_G61
138 2 77.0 116.7	27028 11GR RV 161 27095	27028 11GR RV 161 27095				WHT2 961
138 1 77,1 116,7 0.15933 43.5 65.8	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR				0N172_061 UN172_061 UN172_061 UN172_061 UN172_061 UN172_061 UN172_061
138 1 156.3 158.0 0.01526 91.5 92.8	20SPURLK	0.08991 29496 20PITISB 161 29602 20TYNEK 161 1	R 0.05157			MNT72_661 WNT72_661 WNT72_661 WNT72_661 WNT72_661 WNT72_661 WNT72_661 WNT72_661
1 176.6 175.5 -0.02602 102.5 101.1 1 186.9 -84.7 0.05320 -54.8 -52.6	26851 10CULLEY 138 26875 10ANGMAND	26851 10CULLEY 138 26879 10GRNDVW	· ¤			MNIT2 661 WNIT2 661
1 -176,9 -176,0 0,02760 -128,7 -128,3 -128,3 -128,3 -161,2	27560 14HENDRS 161 27617	26855 10NEWIVL 138 26879	æ			WITT2 661
1 386.1 343.6 0.01393	SPARADIS 161 18926	SPARADIS 161 18691 SBONL GR	* 0.02007			WHT2_061 WHT2_661 WHT2_661 WHT2_061
	Ciopen 27020 11CON1 1 181 27020 11CN CV	-0.36038 27028 11GR RV 161 27042 11KQ 1AP 161 1		-21		WHT2_G61 WHT2_961 WHT2_961 WHT2_661
	Base Case	EARL N		, 12		MIT2_661 WHT2_661
765 1 221.0 243.5 0.03197 171.7	667 05JEFRSO 765 22671 05ROCKPT	BATESV 138	-0.16431	, 12		NNIT2_961 NNIT2_961 UNIT2_961 UNIT2_961 UNIT2_961 UNIT2_961 UNITZ_961 UNITZ_961 UNITZ_961 UNITZ_961
161 1 37.6 73.8	11CORY T 161 27035 11MORGNF		. 0.03328 -0.16431	2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		MHT2_061 MHT2_061 MHT2_061 MHT2_061 WHT2_061
Serve President Company of the Compa		1CORY T 161	* 0.05333 * 0.03328 -0.16431	2, 1, 1,		WHIT2_061

Case: 2004 SUMMER PEAN ECAN BASE CASE	G61P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500	LF Case: G61P00_S.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC
	1500	61700
2004	S 00	ise: G
Case	G61F	Ų,

E. and Estate

																																																								_	
10.97	4.951	4.954	2.611	3.09	23.114	11.661	137.478	137.244	25.094	31.364	28.344	70.70	27.164	21.874	40.141	5.43\$	10.78%	31.901	17.02	33.461	13.414	18.871	20,004	14.801	8.264	B.26%	8.68%	5.17%	1.30	1.20€	1.684		10.29	57.62	57.46%	35 424	35,424	5.831	10.28\$	17.481			17.104	3		_	-		27.43				19.39	37.72	-		13.941
-128.8	234.1	234.1	-131.7	14.7	-128.3	161.2	65.8	65:7	54.7	93.3	87.1	ָהָ הַ הַ	8 29.0	-75.7	16.4	100,5	-54.7	-149.4	65.5			-74.2	-128.7	67.9	234.1	234.1		-115.3	-104.2	-104.3	-20.7		-128.5	65.8	65.7	0.66	234.1	87.1	4.66-	141.2	-118.8	23.5	-104.0		161.2	8.59	65.7	54.7	93.3	-55.6	146.8	23.2	-74.7			.55.8	45.1
-43.1	101.4	101.4	-43.6	۲.5.	-128.7	162.3	43.5	£3.3	52.9	82.6	2	-53.1	20.7	53.6	. 4	95.4	-18.8	9.99-	36.1			-42.5	-43.1	9.6	101.4	101.4		6.65-	-76.2	-76.2	-4,6	;	128.7	43.5	43.3	82.6	101.4	75.2	-53.6	9,711	25.1	20.2	-43.1		162.3	43.5	43.3	52.9	92,6	-53.1	117.9	20.2	-53.6	4		-18.8	16.1
-0,13566	0.19234	0.19234	-0.12197	0.02743	0.02868	-0.02798	0.15050	0.14993	0.00891	0.05337	0.04864	16900.0-	0.01238	0.09280	0.02878	0.01173	-0.07549	-0.17435	0.01954			-0.06090	-0.15305	0.09518	0.20265	0.20265		-0.08309	0.18676	60660.0-	-0.02194		0.00528	0.080.0	0.08000	0.02470	0.28745	0.02251	-0.07416	0.04254	0.10234	0.00511	-0.09338		0.03110	0.15630	0.15571	0.00915	0.05221	0.04758	0.08985	0.00889	-0.04935	0.02865		-0.07425	43610
-179.0	419.7	419.7	-174.9	55.0	-176.0	175.5	116.7	116.7	78.9	157.8	157.8	-81.8	54.6	164.8	4.0.6	164.6	-148.4	-181.6	59.0	116.7	164.8	-129.9	-179.0	95.9	419.7	419.7	-181.6	-140.5	257.2	-154.1	-26.2		175.5	116.7	116.7	157.8	419.7	157.8	-190.8	164.8	226.7	54.6	-179.0		-176.0	175.5	116.7	78.9	157.8	157.8	164.8	54.6	-190.8	40.6	116.7	-148.4	
-73.7	181.9	181.9	-57.2	7.5	-176.9	176.6	17.1	77.0	72.1	139.6	136.4	-72.2	39.0	132.3	19 5	152.1	-121.0	-81.4	41.3	5.5	117.9	-74.4	-73.7	32.4	37.8	181.9	9.99-	-82.6	101.5	-112.6	-3.3	}	212.6	77.1	0.77	139.6	181.9	181.9	-141.9	87.2	107.2	K'/-	24.5		-176.9	176.6	77.0	72.1	139.6	136.4	132.3	39.0	-141.9	19.5	43.5	-121.0	;
1 345 7 34075 345 375 345 14005 7 345 1	C.Open 27553 14WILSOS 161 27561 14WILSOS 345 1	345	C:Open 27025 11EARL N 161 27042 11RQ TAP 161 1	C:Open 27025 11BARL N 161 27042 11RQ TAP 161 1	1 951 PROMBE 161 27617 14HENDE 138 1	26851 10CULLEY 138 26875 10ANGHND	27028 11GR RV 161 27095	27028 11GR RV 161 27095	27061 11BONNIE 138 27141 11SHREWS	27095 11GR RVR 138 27126	27095 11GR RVR 138 27126	27061 11BONNIE 138 27141	27028 11GR RV 161 27042 11RO TAP 161	27240 11LEITCH69.0 27259	27012 11SMITH 345 27142 11SMITH	11ALCALD 345 27011 11PINEVI	26851 10CULLEY 138 26879	27020	n 27061	Dade Case	Base Case	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	C:Open 27561 14WILBO7 345 27563 14COLE 7 345 1	11CORY T 161 27021 11CORYDO	161	C:Open 27553 14MILSOS 161 2/561 14MILSO/ 349 1		en 27109 11LEITCH 138 27141 119HREWS 138	27020 11CORY T 161 27028 11GR RV 161	C:Open 11192 ALBEMARK 100 11291 OAKBORO 100 I	ALBEMAKE 100 11291 CARBONS 150	IIPKINCE69.0 2/293 IIMAANANG9.0	26861 10ABBRWN 138 27617 14HENDR4	26861 10ABBRWN 138 27617 14HENDR4 138	11GR RV 161 27095 11GR RVR	27095 11GR RVR 138 27126 11OHIO C 138	27553 14WILSOS 161 27561 14WILSO7 345	27553 14NILSOS	115MITH	27028 11GR RV 161 27553 14WILSOS 161	27561 14WILSO7 345 27563 14COLE 7 345	27028 11GR RV 161 27553	27028 11GR RV 161 27042 11KQ 1MF	707 707	161 27617 14HENDR4	26851 10CULLEY 138 26875 10ANGMND	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	138 27141 11SHREWS 138	27095 11GR RVR 138 27126 11OHIO C 138	27095 11GR RVR 138 27126	27061 1180NNIE 138 27141 115HREWS 138	C:Open 27240 IlbEliches: 0 4/25 IlColo Corr 22	118MITH 345	11BONNIE 138 27141 115HREWS 138	Bage Case	Base Case	C:Open 26851 10CULDEX 138 28879 LUGNNOW 138 1
	-0.15549 27094 110K SIL 138 27095 110K KVK 130 I		11CORY T 161 27028 11GR RV 161		1 AFT MYMNODEL OFBOT OCT THANDRAL SEASON FRANCES	10NEWIVL 138 26879	27028 11GR RV 161 27095	27028 11GR RV 161 27095	27109	0.75819 27095 11GR RVR 138 27126 110HIO C 138 1	27095 11GR RVR 138 27126	27141	27216 11GR RVR69.0 27271	27126 110HIO C 138 27141	27079 11CLVRPR 138 27094	-0.25375 27205 11E VIEW69.0 29571 20STEPHN69.0 1	26855 10NEWTVL 138 26857	11EARL N 161 27042	11BONNIE 138 29227	27028 11GR RV 161 27095 11GR RVR	27028	11192 ALBEMARL	11GR STL 138 27095 11GR RVR	11CORY T 161 27035 11MORGNF	11CORY T 161 27021 11CORYDO	14WILSOS	11RO TAP	11BONNIE 13B 27141 11SHREWS	11GR RV 161 27042 11RQ TAP	ALBEMARL 100 11291 OAKBORG	ALBEMART 100 11291	0.39733 27223 11HARDST69.0 27293 11WALKER69.0 1	10CULLEY 138 26879 10GRNDVW	26855 10NEWTVL 138	0.77504 27028 11GR RV 161 27095 11GR RVR 138 2	27095 11GR RVR 138 27126 110HIO C 138	27553 14WILSOS 161 27561 14WILSO7	27553 14WILSO5 161 27561	27095 11GR RVR 138	0,59632 27079 IICLVKPK 138 27094 IIGK SID 139 I	26857 10NEWIVL 161 27552	27025 11EARL N 161	27216 11GR RVR69.0	-0.31256 27094 11GR 9TL 138 27095 11GR RVR 138 1	0.40677 26855 10NEWIVL 138 26879 10GRNDVW 138 1	26851 10CULLEY 138 26879	27028 11GR RV 161 27095	27028 11GR RV 161	-0.31949 27109 ILLEITCH I38 2/240 ILLEILCH85:0 I	27095 11GR RVR 138 27126	27109 11LEITCH 138 27141	27126 110HIO C 138	27216 11GR RVR69.0 27271	29571	27028 11GR RV 161 27095	11GR RV 161 27095	-0,62960 26855 10NEWIVL 138 26857 10NEWIVL 161 1
ŝ		0.34477	-0.16301			0.05542	0.25670	0.26648			0.08817	-0.03546					-0.05787		0.03699		0.14993 -	-0.10668			0.05522	0.36327	0.36327	-0.08689		-0.05786	-0.05779	-0.03112	0.02316	-0.02295	0.14246	0.04176	0.51527	0.51527	0.04080	-0.09134	0.19327	-0.27166	0.02442	-0.31215	0.05915	-0.03105	0.27698	0.27674	0.03494	0.08625	-0.03494	0.10108	0.04647	0 04912	0.15630 -	0.15571 -	-0.05511
WATER TO THE PARTY OF THE PARTY	631.7	689.9		724.4 •	,	16.1 R	148.3 •	148.8	193.7 *	201.6 •	243.4 *	270.3 *	293.4 *	314.1	405.1 •	422.6 •	474.7	475.3 *	478.9 •	486.1	489.2	510.0	559.4	612.9	. 9.059	654.8	654.8 *	666.5 *	. 8.069	715.1 *	718.6 •	735.4 *	-16001-	-39.0	277.7	475 8 *	461.6	461.6 *	526.1 *	535.9 *	547.1	4 9.669	640.4 *	651.7 +	15.1 8		142.8	143.3 +	196.6 *	248.8	274.3 *	321.4 *	336.5	427.4	468.1	471.0	4 08 5 +
		750.0			;	750.0	750.0					750.0	750.0		750.0	750.0	750.0			750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0 -1	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	. 250	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
	GROUP 6B	GROUP_63	GROUP ER	GROUP_GB	' !	GROUP_7B	GROUP 7B	GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 78	GROUP 78	GROUP_7B	GROUP_7B	GROUP_7B	ar anoan	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_/B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 8B	GROUP_BB	GROUP_BB	GROUP BB	GROUP 88	GROUP_6B	GROUP 8B	GROUP_8B	GROUP_8B	GROUP 8B	GROUP_8B	GROUP_BB	an dirono	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	
502	UNIT2_G61	UNIT2_G61	UNITZ GEI	UNIT2_G61	ļ	UNITZGEL	UNITZ GEL	UNIT2 661	UNIT2 G61	UNITZ 061	UNIT2 G61	UNITZGEL	UNITZ G61	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNITZ G61	UNIT2 961	UNIT2 G61	UNIT2_061	UNIT2_061	UNITZ_G61	MITT GET	UNITZ G61	UNIT2_G61	UNIT2_961	UNITZ G61	UNITZ G61	UNIT2_G61	UNITZG61	UNIT2_G61	UNIT2_G61	MIT2 G61	UNITZ_G61	UNITZ_G61	UNITZ_G61	UNITZ GEL	UNITZ G61	UNITZGEL	UNITZ_G61	UNIT2_d61	UNITZ G61	UNIT2 G61	UNITZ_G61		UNITZ_d61	UNITZ G61	UNITZ_G61	UNIT2_061	UNITZ_G61	UNITZ G61	UNIT2 G61	UNIT2_G61	UNIT2_d61	UNIT2_G61 UNIT2 G61	UNIT2_G61	

Case: 2004 SUMMER PEAK ECAR BASE CASE
G61P00_S: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case: G61P00_S;sav, MON: PHC.mon; SUBSYST: PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

12.434	23.934	20.994	404			7.334	3.954	3.624	2.011		23.201	11.711	137.694	137.46%	25.161	31.444	28.434	20.854	44.554	27.45*	21.844	10.364	4.454	10.794	31.824	10.01	103 66	10.00	20.00	10.694	14.721	3 22 6	8.24%	8.244	8.61%	5.251	5.161	1.651	_
	-149.3	-128.6		1.1.7	234.1	67.0	-115.2	42.7			-128.3	161.2	65.8	65.7	54.7	93.3	87.1	-55.5	23.8	146.8	-75.4	16.4	100.6	-54.7	-149.4	£. 2				2.46	6.7.9	9 17	. 91.	234.1		-115.3	214.7	-20.7	
	9.99-	143.1	1:2:	101.	101.4	9.6	-59.9	33.5			-128.7	162.3	43.5	43.3	52.9	92.6	75.2	-53.1	20.2	117.9	-53.6	4.3	95.4	-18.8	9.99	36.1			;	1.0	0.0		4 101	101.4		-59.9	85.7	-4.6	
	0.15820	1000	TakeT D-	0.20648	0.20648	0.08499	-0.08069	0.01326			0.02882	-0.02811	0.15069	0.15013	0.00895	0.05347	0.04873	-0.00895	0.01234	0.09218	-0.05383	0.02887	0.01111	-0.07559	-0.17417	0.01934				16651.0-	20200.0-	00000	0.01236	03000		-0.08323	0.18660	F8150 0-	1
164.8	2 181-	0.101.	-1/3.0	419.7	419.7	95.9	-140.5	73.8	181.		-176.0	175.5	116.7	116.7	78.9	157.8	157.8	-61.8	54.6	164.8	-190.8	40.6	164.6	-148.4	-181.6	69.0	116.7	116.7	164.8	-179.0	-129.9	h 1	8.67	419.7		1 101 ·	257.2		4 . , , ,
117.9		. To	-73.7	181.9	181.9	32.4	-82.6	37.8	9 9 9 9		-176.9	176.6	1.77	0.77	72.1	139.6	136.4	-72.2	39.0	132.3	-141.9	19.5	152.1	-121.0	-81.4	41.3	43.5	43.3	117.9	73.7	74.4	92.4	37.8	181.9	181.9	9.00	9.70	1	2.01
Door Case	CADO CADO CADA TA	C:Open 27020 11CORY T 161 27028 11UK KV 161 1		C:Open 27553 14WILGOS 161 27561 14WILGO7 345 2	C:Open 27553 14HILSOS 161 27561 14HILSO7 345 1	C:Open 27020 11CORY T 161 27021 11CORYDO 161 1	C:Open 27109 11LBITCH 138 27141 11SHREWS 138 1	1 131 WINDOWLY SEATS 131 T VOCALL GEORGE TOTAL	Ciopen 2/020 LICORI I LOL 4/025 LICORNI LOL 1		C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	C:Open 26851 10CULLEY 138 26875 10ANGWND 138 1	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	27028 11GR RV 161	C.Open 27061 11BONNIE 138 27141 11SHREWS 138 1	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	C:Open 27061 11BONNIE 138 27141 119HREWS 138 1	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1	C:Open 27240 11LBITCH69,0 27259 11OHIO C69.0 EQ	C:Open 27012 11SMITH 345 27142 119MITH 138 1	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	C: Open 27002 11ALCALD 345 27011 11PINEVI 345 1	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	C:Open 27020 11CORY T 161 27028 11GR RV 161 1	C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	Base Case	Base Case	Base Case	6	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	C:Open 27020 11CORY T 161 27021 11CORYDO 161 1	C:Open 27020 11CORY T 161 27035 11MORGNF 161 1	C:Open 27553 14WILSO5 161 27561 14WILSO7 345 2	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	Base Case	C:Open 27109 11LEITCH 138 27141 11SHREMS 138 1	C:Open 27020 licory lbl 2/028 lidk ky lel L	C:Open 27269 11PRINCE69,0 27293 11WALKER69.0 EQ
Amor	27176	11EARL N 161 27042 11RG TAP	-0.15549 27094 11GR STL 138 27095 11GR RVR 138 1	0.79255 27553 14WILSO5 161 27561 14WILSO7 345 1	0.79255 27553 14MILSOS 161 27561 14WILSO7 345 2					27025 11BARL N 161 27042 11RQ TAP 161 1	0 40677 26855 1DNEWTVI. 138 26879 10GRNDVW 138 1		11GR RV	11GR RV 161 27095	11LEITCH 138 27240			11LEITCH 138 27141	11GR RVR69.0 27271		11CLVRPR 138		11ALCALD 161 27027		0.33947 27025 11BARL N 161 27042 11RQ TAP 161 1	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0 1	. 27028 11GR RV 161 27095 11GR RVR 138 2	27028 11GR RV 161 27095 11GR RVR 138 1	. 27126 110HIO C 138 27141 118HREWS 138 1	-0.15549 27094 11GR STL 138 27095 11GR RVR 138 1		0.68235 27020 11CORY T 161 27035 11MORGNF 161 1	0.45069 27020 11CORY T 161 27021 11CORYDO 161 1	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 1	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 2		11BONNIE		. 0.39733 27223 11HARDST69.0 27293 11WALKER69.0 1
JO.	- 58680.0	-0.19155	-0.19050	0.37012	0.37012	0.09404		0480.0	0.05156	-0.15820 -	98564		0.26704	0.26682	0.03554	0.09042	0.08834	-0.03554	0.05323	0.10365	-0.12077	0.04998	0.02643	-0.05789	-0.21064	0.03687	- 69051.0	0.15013 -	0.09218 -	-0.18839	-0.09252	0.10349	0.05520	0.36315	0.36315	-0.17417 -	-0.08704		-0.03171
erro E	522.2	523.2 +	552.5	642.7 *	642.7 *	675 1 *	11.70		. 4.969	727.1	9 1 31			148.6 4	193 3 *		243 0 1	269.6	243.8 +	113.5	405.3 *	421.6 *	471.3	474.6	475.B *	480.4 *	485.5	488.5	0.605	558.6 *	* 6.665	613.5 *	620.9	. 0.559	. 0.559	660.4	£65.3 *	691.4	736 0 •
	0.027	750.0	750.0	750.0	750.0	0 050	0.00	750.0	750.0	750.0	250	0 0	0.00	750.0	750.0	750 0	0.027	0.025	750.0	250.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	0.057	0.027	750.0	750.0	750 0
10	GROUP_NB	OROUP_NB	GROUP NB	GROUP NB	an anoan	an alroad	GROOF WE	GROUP NB	GROUP_NB	GROUP_NB	41000	as anoun	age droad	as groops	as alload	as alload	as alload	as alload	an allows	as alload	GROUP SB	as alloan	as_ anoan	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP_SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	41000
From	UNIT2_G61	UNIT2_G61	UNITZ G61	UNITZ 961	TATE OF 1	THE CALL	10-21	UNITZ_G61	NIT2_G61	UNITZ_G61		Tan out	WITT OC	INTER OCT	UNITED GET	INITE GET	MITTO GET	MITTO GET	INITE GET	CALLE GES	UNIT2 GE1	110 1111	UNIT2 961	UNIT? GE	UNIT2 G61	UNIT2 G61	UNITZ G61	MIT2 G61	UNITZ G61	UNIT2 G61	UNITZ_061	UNIT2 G61	UNITZ G61	UNIT2 961	UNIT2 G61	UNIT2_G61	UNIT2_G61	NIT2_G61	

Case: 2004 WINTER PEAK ECAR BASE CASE
GG1P00_W: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case: G61P00_Wasn; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL. PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: G61P00 W+UNIT2 G61

		161 & PARADISE 500
IT IALLS: *** MUST 3.20 *** THU, JAN 11 2001 11:01 ***	2004 WINTER PEAK ECAR BASE CASE	ACTION W. 1600 MW COLIT DETWERN ADERN RIV 161 & PARADISE 500
Title: ***	Title1:	History.

Title2:
Monitor File: C:\0.1550 MH :SFU
Monitor File: C:\0.1558R8\MOBDY\PHC.mon
Contingency File: C:\0.154V-USSR8\MOBDY\PHC.mon
Submystem File: C:\0.154V-USSR8\MOBDY\PHC.eub
Exclude File: none

5,95%	96.9	147.524	6.484	41.914	34.664	31.484	22.994	23.801	22.96%	3CB 1/1	10	29.58	12.284	5.73%	5.63	4 65	7.00.		;	15.23\$	18.51	18.514	87.09%	142.461	142.26\$	6.07	42.60\$	33.924	33.034	21.95\$	21.914	18.354	12.324	36.871	30.761	27.66	11.994	4.72	4.35%	4.354	2.59%	131.401	131.201	6.74%	41.601	30.74%	27.664	20.724	18.194
1181.2		74.6		-40.3	101.6	94.8	-260.6	92.6	-259.3	136.9		9.20	4 4			201.6	-149.4	234.2	4.157	-196.2	-146.7	-146.7	44.2	43.5	4.4	236.6	-40.4	101.6	n 4	-260.8	-259,5	136.8	216.7		66.2	32.0	4.8.4	-149.3	234.2	234.2	-92.0	74.6	74.4	236.6	-40.9	101.6	94.8	55.7	-261.1
1264.6	835.1	2.07	69.6	-36.7	97.5	88.8	-242.4	54.1	-240.7	143.3		4	38.8			143.2	-44.7	93.0	95.0	-222.1	-156.4	-156.4	52.1	51.0	6.69	237.6	-36.7	97.5	88.5	-242.4	-240.7	143.3	-25.4	0.007	38.8	9.4	8. g	2.64-	0.00	92.0	-26.7	200	6.69	237.6	-36.7	97.5	8.8.8	54.1	4.242.4
0.02046	0.00136	0.15269	0.15212	-0.05117	0.05247	0.04782	-0.11002	0.00912	-0.11002	-0.02979			0.01823			0.09065	-0.15504	0.20650	0.20650	-0.05352	-0.02336	-0.02336	0.04068	0.03986	0.14755	-0.01484	-0.05469	0.05147	0.04690	-0.10702	-0.10702	-0.03116	-0.07921	67780.0	0.06388	0.02797	0.01852	0.08846	20041.0-	0.20311	-0.09013	73361 0	0 13613	-0.01611	-0.05955	0.04717	0.04298	0.00835	.,,,,,
1724.0	1731.4	132.2	132.2	-189.3	171.8	171.9	-307.3	96.0	-306.0	176.0	132.2	132.2	51.8	-307.3	-306-	231.9	-202.5	419.7	419.7	-334.7	-286.2	-286.2	75.0	75.0	132.2	239.9	-189.3	171.8	171.9	-307.3	-306.0	176.0	-95.7	289.9	6.68	51.8	67.8	231.9	202.5	419.7	-143.0	:	132.2	2361	-189.3	171.8	171.9	86.0	
1810.6	1831.9	124.3	124.2	-181.1	164.6	161.0	-287.2	80.1	-285.5	188.6	70.2	69.9	30.0	-242.4	-240.7	166.7	-73.6	164.9	164.9	-354.7	-305.0	-305.0	88.2	87.9	124.3	241.3	-181.1	164.8	161.0	1.08	-285.5	188.6	-65.0	259.4			49.6	166.7	-73.6	164.9	-36.6	;	124.3	24.2	.181.1	164.8	161.0	1.08	
C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1		C:Open 27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR	C:Open 27079 IICLVRPR 138 27144 IITIPTOP 138 I	138 27126 110HIO C 138	C: Open 27095 11GR RVR 138 27126 11OHIO C 138	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	27061 11BONNIE 138 27141	27099 11HARDBG 138 27100 11HARDN	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	Bace Case		C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	G:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	14WILSO7 345 27563 14COLE 7	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	G:Open 27553 14WILSOS 161 27561 14WILSO7 345 2	C.Onen 96150 7MCRED 145 96162 77HOME 345 1	13	C:Open 30593 FRKN 138 30650 GRAY SUM 138	C:Open 31221 MOBERLY	31221 MOBERLY 161	27028 11GR RV 161	COPEN 27028 11GR RV 161 27095 11GR RVR 138 Z	11SMITH 345 27142 11SMITH	27095-11GR RVR 138	C:Open 27095 11GR RVR 138	C:Open 27061 11BONNIE 138	27099 LIHARDBG 138 Z7100 LIHAKDN	27617 14HENDR4	138 31933 WALLEN 1		2 Base Cade	138 27141 11SHREWS 138 1	1 C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	C:Open 27012 11SMITH 345 27142	345 27563 14COLE 7	C:Open 27553 14MILSOS 161 27561 14MILSO7	1 C:Open 27553 14WILSOS 161 27561 AWILSO/ 343 4	:	C:Open 27028 11GR RV 161 27095 11GR RVR	C:Open 27028 11GR RV 161	C:Open 27028 11GR RV 161 27553 14M1LSUS	27012 119MITH 345 27142 115MITH	C:Open 2/095 IIGK KVK 138 2/126 I1OHIO C	Ciopen 22051 11BOMNIE	TERONORTY TATES OF STUNOSTY
0.75412 18464 BBULL RU SOO 18468 BVOLUNTE 500 1	0.60927 18422 8JVILLE 500 18430 8DAVIDSO 500 1	161 27095 11GR RVR 138	161	-0.07826 27019 11BLUE L 161 29248 20BLIT C 161 1	0.59587 27079 IICLVRPK I38 27094 IIOK SILL I38 I	0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2	SMITH 345	LEITCH 138	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1		- 27028 11GR RV 161 27095 11GR RVR 138 2	- 27028 11GR RV 161 27095 11GR RVR 138 1		138 29227	Z Z701Z 11SMITH 345 Z/14Z 11SMITH 130 I	345 27012 ILEMIIN 138 27141 11SHREMS	GR STL 138		0.79255 27553 14HILSOS 161 27561 14MILSO7 345 1	***************************************	OBERTI TET 36354	0.95083 30593 FRKN 138 30650 GRA: SUM 138 1	OBERLY 161 31222 MOBERLY 69.0	MOBERLY 161 31222	1GR RV 161 27095	1GR RV 161	1 10 2 2001 2002 1917 1 10 1 20 248 20 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1GR RVR 138	1GR RVR 138	138	15MITH 345	IIHARDN 345 27012 IISMIIH	138 96292 SMARIES	OVERTON 345	- 27028 11GR RV 161	Σ		110HIO C 138 27141	_	14WILSOS 161 27561 14HILSO7	14WÎLSOS 161 27561 14WILSO7	0.43126 30957 LKSIDE 1 138 31024 MARIES 138 1	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2	0.77429 27028 11GR RV 161 27095 11GR RVR 138	1192UE & 161	11CLVRPR 138	11GR RVR 138	0.74073 27095 11GR RVR 138 27126 11OHIO C 138	1 0.945 TIRITICH ASSESSMENT STATES STATES STATES OF STATES OF THE STATES
0.02124	0.02502	0.27057	0.27034	-0.02165	-0.11672	0.08669	-0.12099	0.03516	-0.12099	-0.05868	0.15269	0.15212 -	0.04950	0.03537	-0.11002	-0.11002	-0 19077	0.37016	0.37016		-0.04129	-0.04557	00000	0.06868	0.26165	0.26143	-0.02128	-0.11846	0.08503	0.03428	-0,11673	-0.11673	-0.05987	0.08829	0.14765	0.08028	0.04817	0.03311	-0.18461	0.36408	0.36408	-0.14680	. 0.24214	0.24193	-0.02342	-0.11593	0.07975	0.07792	
-4077 0 0	4019.0	28.9	29.4	31.9 R	70.3	125.4 +	. 6 291	166.8	169.4	215.3 R	406.1	409.5	440.4 *	513.4 *	8.685	593.8	4 5 5 5 5	688.5	688.5		-483.9	-414.0	0.516-	-188.4	29.9	30.4	64,9 R	69.5	127.9	171.1	171.8 •	175.6 *	211.0 R	345.9 *	419.9	429.5	452,6	2./16	* 6	700.0	700.0	724.5 4	10 1	32.9	59.0 R	70.7	88.2 *	139.5	
250.0			750.0	750.0	750.0	750.0	0.007	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.067	0.057	150.0		750.0	750.0	0.067	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	750.0	750.0	759.0	750.0	750.0	750.0	750.0	0.007	750.0	750.0	0.027	200	750.0	750.0	750.0	750.0	750.0	
A11 B	- T-	Att	Att. B	ALL	ALL B	ALL B	9 4	App.	Ari.	ALL B	ALL B	ALL B	Atı	ALL_B	ALL_B	Arr B	Arri B	PLT.	ALL B	l -	GROUP_1B	GROUP 18	GROUP_18	GROUP 1B	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	ar anoab	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_IB	GROUP_1B	GROUP_1B	GROUP_18	GROUP_1B	GKOOF THE	GROUP 1B	GROUP 1B	GROUP_1B		UKOUF_ZB	GROUP ZB	GROUP 2B	GROUP 2B	GROUP_2B	
From	UNIT del	UNITZ G61	UNITZ G61	UNITZ_G61	UNIT2_G61	UNITZ G61	1112_001	UNITE GET	UNITZ GEI	UNIT2 G61	UNIT2 G61	UNIT2 961	UNIT2 G61	UNITZ_G61	UNIT2_G61	UNIT2 G61	UNITZ_G61	UNITY OF	UNITZ G61		UNITZ_G61	UNIT2_G61	UNITZ GEL	UNITZ GE1	UNITZ G61	UNITZGEL	UNIT2_GG1	UNIT2_d61	UNIT2_G61	UNITZ G61	UNITZ G61	UNITZ_d61	UNIT2_G61	UNITZ GEI	UNIT2 G61	UNITZ G61	UNITZ_G61	UNIT2 G61	UNITZ_G61	UNIT2_861	UNITZ G61	UNITZ_G61	;	UNIT2_G61	UNIIZ GEI	UNITZ GEL	UNIT2 G61	UNIT2 G61	

C888: 2004 WINTER PEAK ECAR BASE CASE
G61P00_W; 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF C868: G61P00_W.S8V; MON: PHC.mon; SUBSYST; PHC.sub; CONT: PHC.con; EXCL. PHC.EXC

470	30.621	30.10%	22.304	8.34	10.08	176.1	1.854	1.11	2.074	7,361	9.194	7.784	7.454	153.77	153.551	34.674	32.281	29.164	19.394	19.34%	12.304	43.241	42.681	26.174	8.884	6.914	7.221	2.26*	2.144	3.09	9.094		7.84	9.034	6.34%	148.991	148.784	36.54	33.511	26.384	26.364	25.491	21.85%	19.761	40.55\$	40.004	33.574	8.661	8.561	6.65		353.5	5.614	1.064	197 01	10.401
9.652	4.00		22.1	48.4	2.96.2			201.8	-147.8	800.9	1.077	1198.7	237.6	74.6		-40.1	101.6	8 L	2560 5	-259.1	137.2			22.2	47.9	234.2	-149.4			34.6	32.3		801.8	1197.3	237.6	74.6	74.4	1.04-	94.8	-260.5	-259.2	9.52	3.1.6	137.0			22.0	48.0		201.3	175.5	-149.5	234.2	-144.4		754.6
-240.7	7		9.4	38.8	92.0			143.2	-44.7	835.1	9.067	1264.6	237.6	70.2	6 69	-36.7	97.5	8.8	54.1	-240.7	143.3			9.4	38.8	92.0	-44.7			143.2	-15.4		835.1	1264 6	237.6	70.2	6.69	-36.7	8.89	-242.4	-240.7	54 .1	4 to	143.3			4.6	38.8		143.2	1.59.7	-44.7	92.0	-81.4	į	193.9
-0.09461	26660.0-		0.02599	0.01675	0.22098			0.08120	-0.14203	0.01221	0.00875	0.04835	-0.02384	0.01401	0.15830	-0.04137	0.04925.	0.04488	0.00892	08580-0-	-0.02218			0.02770	0.01615	0.21109	-0.15553			0.08558	102/0.0		0.01556	0.00895	-0.02029	0.15415	0.15357	-0.05317	62650.0	-0.12201	-0.12201	0.00959	-0.02012	-0.00929			0.03041	0.01873	·	0.09567	0.02472	-0.16024	0.20705	-0.08608		00000
0.900	132.2	132.2	51.8	67.8	419.7	-307.3	-306.0	231.9	-202.5	1731.4	1132.6	1724.0	239.9	141.8	132.2	-189.3	171.8	171.9	96.0	-307.3	176.0	132.2	132.2	51.8	67.8	419.7	-202.5	-307.3	-306.0	231.9	6.99		1731.4	1132.6	239.9	132.2	132.2	-189.3	171.8	-307.3	-306.0	0.98	2.77	7.9.7	132.2	132.2	51,8	67.8	-307.3	231.9	210.8	-202.5	419.7	-170.6		
-285.5	78.6	6.69	30.0	49.6	164.9	-242.4	-240.7	166.7	-73.6	1831.9	1214.2	1810.6	239.9	141.2	124.2	-181.1	164.8	161.0	80.1	-287.2	188.6	70.2	6.69	30.0	49.6	164.9	9.62-	-242.4	-240.7	166.7	-32.0		1631.9	1214.2	239 9	124.3	124.2	-181.1	164.8	-287.2	-285.5	80.1	82.0	0.00	70.2	6.69	30.0	49.6	-242.4	1.042	194.4	-73.6	164.9	-100.6		
C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 26861 10ABBRWN 138 27617 14HENDR4 138 1		C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	11BONNIE 138 27152 119 LEBA 138	14WILSOS 161 27561 14WILSO7	C:Open 27553 14MILSOS 161 27561 14MILSO/ 345 2		n 27012 11SMITH 345 27142 11SMITH 138	_	COLUMN 1847E DEFINITION SAN 1847D BENEVING SED 1	BPHIPP B 500 18468 BVOLUNTE	BWBNP 1 500 18468	OSWAGENH 138 23711 05LTV 138	11BRWN P 138 27150 11W CLIF 138	C:Open 27028 11GR RV 161 27095 11GR KVK 138 1.	27012 118MITH 345 27142 118MITH 138	11GR RVR 138 27126 110HIO C 138	11GR RVR 138 27126 110HIO C	11BONNIE 138 27141 11SHREWS	11HARDBG 138 27100	11HARDEG 138 2/100 11HARDEG 14 14 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	1		061 11BONNIE 138 27141 11SHREWS 138	11BONNIE 138 27152 11W LEBA 138	14NILSOS 161 27561 14WILSO7 345	C.Open 27553 14MILSOS 161 2/561 14MILSO/ 345 2			11SMITH 345 27142 11SMITH 138	C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 1	Z/Zeu Lifenius	C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 1	8PHIPP B 500 18468	18457 8WBNP 1 500 18468 8VOLUNTE	C:Open 23248 O5WAGENH 138 23711 U5LTV	27028 11GR RV 161 27095 11GR RVR	27012 11SMITH 345 27142 11SMITH	27095 11GR RVR 138 27126 110HIO C	C:Open 27095 11GR RVR 138 27125 11CHIO C 138 1	27099 11HARDEG 138 27100 11HARDN	27061 11BONNIE 138	05RICHCT69.0 24690 05NWHTH 69.0	05RICHCT69.0 24689	n 27560 14HENDRS 161 27617 14HENDR4 138	Base Case	961 11BONNIE 138	11BONNIE 138 27152 11W LEBA 138			C:Open 27012 11SMITH 345 27142 115M1H 138 1 C:Open 22617 05NPROCT 765 23190 05NPROCT 138 1	27561 14WILSO7 345 27563	27553 14WILSOS 161 27561 14WILSO7	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 2		
27012 119MITH 345	0.42491 26851 10CULLEY 138 26879 10GRNDVW 138		-0.25368 27205 11E VIEW69.0	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0	0.79255 27553 14WILSOS 161 27561 14WILSO7	0.79255 27553 14NILSOS 161 27561 14MILSO7	-0.09461 - Z7012 ILSMITH 345 Z7142 LISMITH 158 Z	AFT PASSED IL TALES OFF O OTHER PROPERTY OF THE PASSED OF	-0.15537 27094 11GR STL 138 27095 11GR RVR 138		0.03587	0.75412 18464 8BULL RU 500 18468 BVOLUNTE SOO	- 1	0.56875 27156 11MC-DD 138 27295 11MC-DD 69.0	0.77495 27028 11GR	0,77429 27028 IIGK KV 161 27095 IIGK KVK 130	27095 11GR RVR 138 27126 11OHIO C 138	0.74073 27095 11GR RVR 138	-0,31945 27109 11LEITCH 138 27240 11LEITCH69.0	-0.32916 27012 11SMITH 345 27142 11SMITH 138	-0.32916 27006 11HARDN 345 27012	-0.42491 26851 10		-0.25368 27205 11E VIEW69.0	0.32160 27061 11BONNIE 138 29227	0.79255 27553 14WILSOS 161 27561	0.79255 27553 1	-0,15537 27094 11GR STL 138 2/095	27006 11HARDN 345 27012 11SMITH	-0.09687 27126 110HIO C 138	1.00000 27180 11CANAL 69.0	0.13908 1.00000 27180 11CANAL 69.0 27260 11FALLS 69.0 1	0.04707 0.60927 18422 8JVILLE 500 18430 8DAVIDSO 500 1	-0.35537 18468 8VOLUNTE 500	0.75412 18464 8BULL RU 500 18468	27019 11BLUE L	11GR RVR 138	0.59587 27079 11CLVRPR 138 27094 11GR STL 138	0.75817 27095 11GR RVR 138 27126 11OHIO C 138	0.74073 27095 11GR RVR 138 27126	-0.32916 27012 11SMITH 345 27142 11SMITH	111.RITCH 138 27240 11LEITCH69.0	1.00000 24686 05RICHCT69.0 24689	1,00000 24686 OSRICHCT69.0 24690 OSNWHIH 69.0	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138	27028 11GR RV 161	27028 11GR RV 161 27095 11GK RVK 138	29227 20BONNIE69.0	27012 11SMITH 345 27142 11SMITH 138	- 27006 11HARDN 345 27012	-0.09687 27126 110HIO C 138 27141		161 27561 14WILSO7	0.79255 27553 14WILSOS 161 27561	0.09575 0.07924 27061 11BONNIE 138 27141 115HRBMS 138 1	
•	×							٠					«	22.6 * 0.			84.5 * 0.	. •		•		œ										710.9 * 0.				e.		29.2 * 6				152.0 * -0			· æ			417.3 * 0		•			654.1 * -0	٠	731,0 + -0	
750.0 202.3			750.0 457.6				750.0 685.8				750.0 -2803.3						750.0 84						750.0 390.2						750.0 677	750.0 688.1		750.0 710	C. 35195. 0 037					750.0				750.0 15						750.0 41					750.0 65		750.0 73	
GROUP 28	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 2B	GROUP_28	GROUP_2B	GROUP_2B	GROUP ZB	GROUP_2B		GROUP_3B	BE GIORE	GROUP 3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP 3B		GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	group_38	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_38	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	group_3B	44	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_48	GROUP 48	GROUP 4H	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP 4B	
From UNIT2 061	UNIT2_G61	UNIT2_061	UNITZ_G61	UNITZ G61	UNITZGEL	UNIT2_G61	UNIT2_061	UNIT2_d61	UNITZ G61	1	UNITZ_G61	UNITY GET	UNIT2 061	UNIT2_G61	UNIT2_G61	UNITZ G61	UNITZ_G61	UNITZ G61	UNITZ G61	UNIT2_G61	UNIT2_861	UNIT2_G61	UNITZ_G61	UNIT2_G61	UNITZ G61	UNIT2 G61	UNITZGEL	UNIT2_G61	UNITZ_G61	UNITZ G61	UNIT2 G61	UNITZ G61		UNIT GEI	UNITZ G61	UNITZ G61	UNITZ_G61	UNIT2_961	UNITZ G61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNIT2 061	UNITZ G61	UNIT2_061	UNIT2_G61	UNITZ_G61	UNIT G61	UNITZ G61	UNIT2 G61	UNIT2_961	UNITZ_G61 UNITZ_G61	UNITZ_G61	

Case; 2004 WINTER PEAK ECAR BASE CASE
G61P00_W; 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case; G61P00_W sav; MON; PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

C 13

The second second

0,02676 835.1 7 0,06565 1264.6 12 -0,06140 166,4	70.2	7 -141.4 -137.9 5 -36.7 -39.4		7.74- 5.94-	7	.4 -260.2		139.4	102.0	-121.9	137.4	:		-15.8			47.2	121.0	-26.0	300.8	226.8	-150.4 11.67%	-143.9 4.93% 234.2 4.26%			74.4 135.64%		94.8 27.81	55.6 20.38%		136.6 13.901	32.60	22.0 21.20%	18.5 9.00%	1.764	182.8 4.72% 201.8 0.89%		234.2 1.31%		74.6 145.80% 74.4 145.59%						
0.06565		•			7	88.8	-240.7	243.9	7.86	-110.3	143.3		9.4 22.0	6.6-				-1.2			183.2		-81.4 -12		70.2		1.85		54.1					38.8		-42.4 -1		92.0 2		70.2						7 7
97.6		0,07417	0.01503	0.05952	•	0,05424		-0.03299	0.01838	-	-0.02616	1	0.03253	51.500 0-			0.01774	0.02575	-0.02145	0.10339	0.07190	-0,16691	-0.09335	0.20284	0.14106	0.14053	0.04738	0.04318	0.00806	-0.09424	-0.02638		0.02532	0.01738		-0.19876	0.19362	0.19362	0.00657	0.15097	1,000.0		0.05352	0.05352	0.05352	0.05352 0.05352 0.05352 0.00903
2 2 " .	132.2	-164.2	-280.0	171.8	-199.5	9,171 6,70E-	-306.0	222.9	172.0	-216.9	176.0	132.2	\$1.8	132.2	-307.3	-306.0	67.8	57.4	58.5	231.9	470.5	-202.5	-170.6	419.7	132.2	132.2	171.6	171.9	86.0	-306.0	176.0	132.2	51.8	67.8	-306.0	-221.5	419.7	419.7	1731.4	132.2	2.22.2		171.8	171.8	171.8 171.9 -307.3	171.8 171.9 -307.3 86.0
1831.9 1810.6 199.1	124.3	-168.2	-281.7	164.8	-206.8	161.0	-285.5	232.0	167.6	-205.3	188.6	70.2	30.0	69.6	-13.9	-240.7	49.6	6.7	-184.2	166.7	437.5	-73.6	-100.6	164.9	124.3	124.2	181.1	161.0	80.1	-287.2	188.6	70.2	30.0	49.6	-242.4	-52.2	166.7	164.9	1831.9	124.3	124.2	T. TOT-	164.8	164.8	164.8 161.0 -287.2	164.8 161.0 -287.2 80.1
18425 GCUMBERL 500 18430 GDAVIDSO 18457 BWBNP 1 500 18468 BVOLUNTE 27017 11ARNOLD 161 27023 11DELVIN	27028	27110 11LR TAP 138 29387 20JKSMIT	27105 11KENTON 138 29566 20SPURLK	C.Open 27095 11GR RVR 138 27126 11OHIO C 138 2	29386 20JKSMIT 161 29500 20POWELE	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	11HARDEG 138 27100 11HARDN	29386 20JKSMIT 161 29500 Z0POWELL	C:Open 27061 11BONNIE 138 27141 115HREWS 138 1	11101 8BAD CRK S00 11102 8JOCASSE	10ABBRWN 138 27617	C:Open 29432 20MAYSVJ 138 29566 20SPURLK 138 1 Base Case	C:Open 27061 11BONNIE 138 27141 11SHREMS 138 1		C:Open 23051 05FULLER 138 23173 05M1LLBR 138 1 Rase Case	Dane Case	11BONNIE 138 27152 11W LEBA	OSFULLER 138 23173 OSMILLER	C:Open 11101 BBAD CRK 500 11102 8JOCASSE 500 1	27012 118MITH 345 27142 115MITH	27004 11BRWN N 345 27015 11W LEXN	C:Open 23051 05F0LLER 138 23173 USMILLER 139 1 C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	27012 118MITH 345 27142 116MITH	C:Open 27553 14WILSOS 161 27561 14WILSO? 345 2 C:Omen 27563 14WILSOS 161 27561 14WILSO? 345 1	27028	27028 11GR RV 161 27095 11GR RVR	27012 11SMITH	110HIO C	138 27141 11SHREWS	11HARDBG 138 27100 11HARDN	C:Open 27099 ILHARUBG ISO 2/100 ILHARUR 130 1 C:Open 27560 I4HENDRS 16I 276I7 14HENDRA 138 I		Base Case C.Omm 27061 11BONNIE 136 27141 115HREWS 138 1	11BONNIE 138 27152 11W LEBA	Base Case		27012 118MITH 34S 27142 118MITH 138	27561 14WILSO7	C. Omen 18425 GCUMBERL 500 18430 BDAVIDSO 500 1	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	30100 901 and apri 100mg	27095 11GR RVR 138 27126	11GR RVR 138 27126 11GR RVR 138 27126 11HARDEG 138 27100	27095 IIQR RVR 138 27126 IIQHIO C 27095 IIQR RVR 138 27126 IIQHIO C 27099 IIHARDBG 138 27100 IIHARDN 27061 IIBONNIE 138 27141 IISHREWS
18422 6474161E 500 18430 BDAVIDSO 18464 8BULL RU 500 18468 BVOLUNTE 27023 11DELVIN 161 29348 20GRNHLJ	11GR RV 161 27095 11GR RVR	27023 11DELVIN 161 29215 20BTVVL	20SPURLK	0.75817	1 161 27045	27095 11GR RVR 138 27126 11OHIO C	-0.32916 27012 11SMITH 345 27142 11SMITH 138 1 -0.32916 27006 11HARDN 345 27012 11SMITH 345 1	27034 11LR TAP 161 27045	27109 11LEITCH	- 0.4/24/ 2/03/0 AAFLEMIN 15/0 2/05/5	0.42491 26851 10CULLEY 138 26879 10GRNDVW	-0.47947 27105 11KENTON 138 27157 11WEDONI 138 1	- 25368 27205 11E VIEW69,0 29571	- 27028 11GR RV 161 27095	0.77655 24067	- 27006 11HARDN 345 27012 11SMITH	0.32160 27061 11BONNIE 138 29227	-0.77655 24067 05GRAYSB69.0 29198	11084 SNANTAHA 161 11172	0,48510 24084 05PLYM,G69.0 24091 05N HAVH59.0 1 -0,09687 27126 110HIO C 138 27141 115HREWS 138 1	-0.51651 27015 11W LEXN 345 27153	0.48510 24077 D5FRANKN69.0 24084 05PLYM.G69.0 1	0.07924 27061 11BONNIE 138 27141	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 1	# # # # # # # # # # # # # # # # # # #	0,77429 27028 11GR RV 161 27095	0,59587 27079 11CLVRPR 138 27094	0.75817 27095 11GR RVR 138 27126 110HIO C 138 1	0.74073 27093 1108 NVK 130 27120 -0.31945 27109 11LEITCH 138 27240	-0.32916 27012 11SMITH 345 27142 11SMITH	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	27028 11GR RV 161 27095	27028	-0.25368 27205 IIE VIEW59:0 295/1 0.32160 27061 11BONNIE 138 29227	27012 11SMITH 345 27142 11SMITH	27006 11HARDN 345 27012 11SMITH 345 1 . 0.33926 27025 11EARL N 161 27042 11RQ TAP 161 1	-0.09687 27126 110HIO C 138 27141 118HREWS	0 .79255 27553 14WILSO5 161 27561 14WILSO7 345 1 0 .79255 27553 14WILSO5 161 27561 14WILSO7 345 2		0.60927 18422 8JVILLE 500 18430 8DAVALDSO 0.77495 27028 11GR RV 161 27095 11GR RVR	0.77429 27028 11GR RV 161 27095	1 9EL 11GR STL 138 1		0.75817 27095 11GR RVR 138 27126 11OHIO C	0.75517 27095 110R RVR 136 27126 110HIO C 0.74673 27095 110R RVR 136 27126 110HIO C 0.74673 27095 110R RVR 136 27126 110HIO C	0.558.7 27055 116R RVR 118 27126 116NHO C 0.4673 27055 116R RVR 118 27126 116NHO C -0.32916 27025 115MHTH 345 27142 115MHTH -0.31945 27169 111EKTICH 118 27340 111EKTICH
* 0.06660 * 0.08807 R -0.07903		ω.	* -0.12640 R 0.02576		R 0.03013 R 0.06847		* -0.15904	ĸ		0.06043	nx.		0.05622		*	-0.14120				0.07056		* -0.07056				0.24975	٠		. 0.03123		* -0.10204	4		• 0.04371 • 0.03240	٠	-0.09424		* 0.34708		0.04974			-0.12103		·	' '
UNITY_G1 GROUP_SB 750.0 - 1859.7 NRTZ-G61 GROUP_SB 750.0 - 989.3 NRTZ-G61 GROUP_SB 750.0 - 989.3 NRTZ-G61 GROUP_SB 750.0 - 19.1	27.5	4.7.4	750.0 64.9 T		750.0 96.4 R 750.0 105.9 R		750.0 126.1 *			750.0 192.4			750.0 387.8			750.0 459.5				750.0 545.3		750.0 612:1				750.0 31.3			750.0 138.9		750.0 200.9			750.0 498.8		750.0 693.3		750.0 734.2		750.0 -2021.7			750.0 67.8		-	

Case: 2004 WINTER PEAK ECAR BASE CASE
G61P00_W: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 500
LF Case: G61P00_W.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

C 100

38.214	101	3.50	13.978	6.45%	5.281	6.361	4.18	4 . 18 %	17.034	74.861	74.728	31.86%	14.161	11.464	31.371	31.374	11.09	2 96.5	1.554	1.43\$		7.514	6.484	148.624	148.414	41.344	34.47	22.824	23.761	22.791	18.494	39.791	115.62	11.718	5.524	4.524	7.54	6 . 09 t	6.09	7.148	145.70%	145.491	43.354	35,384	21.98	23.95%	24 . 164	16,554	38.144	30.35	13.634	192 1	6.58	5 . 24 %	6.171	4.014	4.014
			4.8.4		201.5	-149.6	234.2	234.2	140.5									2.002	-121.4	-113.9	;	776.6	237.6				97101				136.9			48.1		201.6	-149.3	234.2	234.2						2, 14.0	-259 3	55.6	137.0		22.0	48.3	-121.9		201.5	-149.7	234.2	234.2
	4.6		38.8		143.2	-44.7	92.0	92.0	143.3	70.2	69.9	-36.7	5.76	88.8	92.0	92.0	46.3	242.4	-117.7	-44.7		793.9	237.6	70.2	69.6	-36.7	2. te	-242.4	54.1	-240.7	143.3		9.4	38.8		2 141 2	-44.7	92.0	92.0	1 350	70.2	6.69	-36.7	97.5	8.8.6	-240.7	54.1	143.3		9.4	38.8	-110.3		143.2	-44.7	92.0	
	0.02898	-0.02560	0.01945		0,09227	-0.15392	0.20257	0.20257	0.00529	0.08041	0.08011	-0.07412	0.02470	0.02251	0.28745	0.28745	0.10234	-0.02890	10.0584	-0.09342		0.00535	-0.02073	0.15378	0.15320	-0.05023	0.05222	-0.10916	0.00919	-0.10916	-0.03073		0.02887	9.01776			-0.15608	0.20853	0.20853		0.15087	0.15030	-0.05247	0.05345	0.04671	. 16511.0-	0.00903	-0,02782		0.02895	0,01910	-0.02056		0.09211	-0.15359	0.20205	
132.2	51.8	-216.9	67.8	0 305-	231.9	-202.5	419.7	419.7	176.0	132.2	132.2	-189.3	171.8	171.9	419.7	419.7	242.2	-307.3	175.6	-202.5		1132.6	239.9	132.2	132.2	-189.3	171.8	-307.3	86.0	-306.0	176.0	132.2	8,18	67.8	-307.3	-306.0	231.9	419.7	419.7		1731.4	132.2	-189.3	171.8	171.9	-306.0	96.0	176.0	132.2	132.2	67.8	-216.9	-307.3	231.9	-202.5	419.7	
6.69	30.0	-205.3	49.6	-242.4	166.7	-73.6	164.9	164.9	88.	124.3	124.2	-181.1	164.8	161.0	164.9	164.9	124.1	-263.2	. 261.5	28.8		1214.2	1810.6	124.3	124.2	-181.1	164.8	161.0	80.1	-285.5	188.6	70.2	30.0	49.6	-242.4	-240.7	166.7	164.9	164.9		1831.9	124.2	-181.1	164.8	161.0	-287.2	1,06	188.6	70.2	6.9.9	49.6	-205.3	-242.4	166.7	-73.6	164.9	
	11BONNIE 138 27141 116HREWS 138	C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	n 27061 11BONNIE 138 27152 11M LEBA 138	Base Case	Base Case	14WILGO7 345 27563 14COLE 7	27553 14WILSOS 161 27561 14WILSO7 345	Open 27553	1 851 Adiranta 17350 131 Bundata 18350	14HENDRS 161 2/61/ 14HENDR4 138	BEI SVS SELL SPOTZ 131 VB SELL SCOTZ	115MITH 345 27142 115MITH 138	27095 11GR RVR 138 27126 11OHIO C	27095 11GR RVR 138 27126 11OHIO C 138	27553 14WILSOS 161 27561 14WILSO7	27553	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	27079 11CLVRPR 138 27094 11GR STL	27079 11CLVRPR 138 27094	C:Open 26861 JOANSKWN 138 (781) 1485NDN4 138 1		18018 SPHIPP B 500 18468 SVOLUNTE	18457 8WBNP 1 500	2	27028 11GR RV 161 27095 11GR RVR	27012 11SMITH 345 27142	11GR RVR 138 27126 110HIO C		27141 11SHREWS	11HARDEG 138 27100 11HARDN	14HENDRS 161 27617	Base Case	BEL SHERELL FAITS BEL STANDARD	27152 11W LEBA			27012	27561 14HILSO7 345	27553 14WILSOS 161 27561 14WILSO7		18425 BCUMBERL 500	27028 11GR RV 161 27095 11GR RVR	11SMITH 345 27142 11SMITH	27095 11GR RVR 138 27126	11GR RVR 138 27126 11OHIO C	27099 11HARDBG 138 27100	IIMARDEG 138 2/100 LIRARDA	138 27617 14HENDR4			C:Open 27061 11BONNIE 138 2/141 1158KENS 138 1	BBAD CRK 500 11102 8JOCASSE 500	Base Case	UTIMOLI CALCO SEC	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	161 27561 14WILSO7 345	
0.15041 - 27028 11GR RV 161 27095 11GR RVR 138 1	-0,25368 27205 11E VIEW69.0 29571	- 11172 SROBBINS 161 18040	0.32160 27061 11BONNIE 138 29227 20BONNIE6	- 27012 11SMITH 345 27142 118MITH	27006	TIGH BVR	0.79255 27553 14WILSOS 161 27561 14WILSO7	0.79255 27553 14WILSOS 161 27561 14WILSO7		-0.42491 26851	O 1/495 2/028 IIGK KV 161 2/095 IIGK KVK	O. / 7429 Z/UZB ILUK KV ISI Z/USS ILUK KVK A EACES 22020 11CIMPED 126, 22004 11GB STI.	20095 11GB RVR 138 27126 11OH10 C	OTHORE SELECT SELECTION OF THE SECOND OF THE SELECTION OF THE SELECTION OF THE SECOND	0.79255 27553 14WILSOS 161 27561 14WILSO7	0,79255 27553 14WILSOS 161 27561 14WILSO7	0.19327 0.41730 26857 10NEWIVE 161 27552 14COLE 5 161 1	-0,07099 0.56786 27012 11SMITH 345 27142 11SMITH 138 1	0.56786 27006 11HARDN 345 27012 118MITH	-0.02296 -0.40677 26855 10NEWIVE 138 26879 10GRNDVW 138 1	NAV WETT 66017 951	0.02521 -0.35537 18468 8VOLUNTE 500 18469 SVOLUNTE 161 1	0.75412 18464 BBULL RU 500 18468 8VOLUNTE	27019 11BLUE L 161 29248 20BLIT C	0.27250 0.77495 27028 110K KV 161 27095 110K KVK 138 2	0.59587 27079 11CLVRPR 138 27094 11GR STL	0.75817 27095 11GR RVR 138 27126	0.74073 27095 11GR RVR 138 27126 11OHIO C		365 27012	-0.42491 26851 10CULLEY 138 26879 10GRNDVW	- 27028 11GR RV 161 27095	27028 11GR RV 161 27095	0,04945 -0,25368 27205 118 VIEW69,0 29571 ZUSIEPHNW9,0 I	- 27012 11SMITH 345 27142	- 27006 11HARDN 345 27012 11SMITH	-0.09687 27126 110HIO C 138 27141 11SHREWS	-0.15537 27094 11GR STL	0.79255 27553 14MILSOS 161 27561 14WILSOV	TACLE TAT CORTIN	500 18430 8DAVIDSO	0,77495 27028 11GR RV 161 27095 11GR RVR		138 2724 11GH	0,74073 27095 11GR RVR 138 27126	-0.32916 27012 11SMITH 345 27142 11SMITH	-0.32916 27006 11HARDN 345 27012		27095	. 27028 11GR RV 161 27095	-0.25368 27205 11E VIENE9.0	0,03659 0.32160 27061 IIBONNIE 138 2922/ ZUBONNIE69:0 1	27012 11SMITH 345 27142	27006 11HARDN 345 27012 11SMITH	-0.09687 27126 110HIO C 138 27141 115HREWS	-0.18852 -0.15537 27094 11GR STL 138 27095 11GR RVR 138 1	1001101 10011 1001100
		٠				632.2 * 0.					. ,							620.8 * -0.			0.14/		•	· «	28.7 • 0.						. 22			440.8 * 0.										68.1 * -0		٠			227.1 R -0			496.3 + 0					
750.0 414.1						750.0 632				Ÿ			760 0.007					750.0 620			750.0	750.0 -3236.4	-15		750.0 28					750.0 167				750.0 440						750.0 68.	750.0 -3272.5			750.0	٠				750.0 22				750.0 56				
GROUP 7B	GROUP 78	GROUP 7B	GROUP 7B	GROUP_78	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B		GROUP_BB	GROUP_BB	GROUP, BB	GROUP BB	and another	GROUP BB	GROUP 88	GROUP BB	group BB	GROUP BB	GROUP_BB	GROUP BB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NH	GROUP NB	GROUP NB	GROUP_NB	GROUP NB	GROUP NE	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_BB	GROUP_5B	GROUP 9B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP SB	GROUP_SB	GROUP_SB	group_sB	GROUP, SB	GROUP SB	GROUP SB	
UNIT2 G61	UNITZ G61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNIT2_G61	UNITZ G61	UNIT2_G61	,	UNITZ G61	UNIT2_G61	UNIT2_G61	UNIT2 GG1	ONITZ GEL	UNITS DEI	UNIT2 GEI	UNIT2 G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNIT2 G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNIT2 GET	UNIT2 961	UNIT2_G61	UNIT2_G61	UNIT2_661	UNITZ GEI	UNITZ G61	UNIT2_G61	UNIT2_G61	UNITZ_d61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNIT2_061	UNIT2_G61	UNITZ_G61	UNIT2 G61	UNITZGEL	UNIT2_G61	UNITZ_D61	UNITZ G61	UNIT2_061	UNITZ_G61	UNITZ_061	UNIT2 961	UNIT2_061	UNIT2_G61	

Case: 2004 WINTER PEAK ECAR BASE CASE
G61P00_W: 1500 MW SPUT BETWEEN GREEN RIV 161 PARADISE 500
LF Case: G61P00_W.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

24.87t 13.82t 122.58t 122.37t 21.64t 26.66t

65.8 65.8 65.7 64.7 93.3

162.3 43.5 43.3 52.9 82.6

44.0 -50.1 57.0

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
GG1P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; GG1P61OS.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Section 1

1.30

FCITC MULTIPLE TRANSFER REPORT: G61P610S+UNIT2_G61.TRA

MUST Title:	e: *** MUST 3.20 *** WED, JAN 10 2001	* WED, JA	5 5	20;22 ***	Man Pre				
Title2: Monitor File:	C:\BV-	OO MW SPLT	T BETWEEN G	REEN RIV 16	SH GREEN NIV 161 4 PADADISE 161				
Subayatem File: C:\B' Exclude File: none	ntingency firs: C:\BV-UGERS\NOBODY\PHC.sub Subsystem File: C:\BV-UGERS\NOBODY\PHC.sub Exclude File: none	VPHC. sub							
Reporting the firs	first 200 violations per	transfer	8						
PROM	ê	į	Point St	agu	Aoby	Magnetic Contraction Contracti	Beeshire.	takaste n	FTDF
UNIT2_061 UNIT2_061	ALL B	750.0	15.4 R 35.0 R	0.05805	0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1 0.16225 26851 10CULLEY 138 26879 10GRNDVW 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1 C:Open 26851 10CULLEY 138 26875 10ANOMND 138 1	176.6	175.5	-0.02969
UNIT2_G61	ALL_B	750.0	144.4 •	0.27395	161 27095 11GR RVR 138 2	161 27095 11GR RVR 138	77.1	116.7	0.15459
UNITZ G61	ALL B	750.0	144.9 *	275730	0.77439 27028 11GR RV 161 27095 11GR RVR 138 1 C = -0.31949 2709 111RTTCH 69.0 1	C:Open 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27061 11BONNIE 138 27141 11SHREMS 138 1	72.1	78.9.	0.15401
UNITZ G61	ALL B	750.0	204.9	0.08881	138 27126 110HIO C 138 1	27095 11GR RVR 138 27126 11OHIO C 138	139.6	157.8	0.05252
UNIT2_G61	ALL_B	750.0	247.4 •	0.08677	27095 11GR RVR 138 27126 110HIO C 138 2	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	136.4	157.8	0.04786
UNITZ G61	Art. B	750.0	319.5	0.10171	0.31949 27109 116817CH 138 27141 118HREWS 138 1 - 0.57605 27126 110HIO C 138 27141 118HREWS 138 1 C	CiOpen 27061 ILBONNIE 138 27141 ILBONESS 135 1 Ciopen 27240 ILLEITCH69,0 27259 110HIO C69.0 EQ	132.3	164.8	0.09042
UNIT2_061	ACC.	750.0	322.6 *	0.04847	27216 11GR RVR69.0 27271 11RQ TAP69.0 1	27028 11GR RV 161 27042 11RQ TAP 161	39.0	54.6	0.00993
UNIT2 G61	ALL.B	750.0	427.3 *	0.04931	0,59632 27079 11CLVRPR 138 27094 11GR STL 138 1 -0,25375 27205 11E VIEW69,0 29571 208TEPHN69.0 1	C:Open 27012 11SMITH 345 27142 11SMITH 138 1 C:Open 27061 11BONNIE 138 27141 :11SHREWS 138 1	-141.9	40.6	0.02867
UNIT2_061	ALL_B	750.0	473.3	0.15459 -	27028 11GR RV 161 27095 11GR RVR 138 2	Bace Case	43.5	116.7	
UNITZ G61	Att. B	750.0	476.2	0.15401 -	- 27028 11GR RV 161 27095 11GR RVR 138 1	Base Case C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	43.3	-148.4	-0.07457
UNIT2 G61	Att B	750.0	502.5	0.03525	27061 11BONNIE 138 29227 20BONNIE69.0 1		41.3	0.65	0.01809
UNITZ_G61	Att_B	750.0	\$08.1 +	-0.19723	11EARL N 161 27042 11RQ TAP 161 1	C:Open 27020 11CORY T 161 27028 11GR RV 161 1	-81.4	-181.6	-0.16295
UNIT2_G61	ALL B	750.0	518.9	0.09042 -	- 27126 110HIO C 138 27141 115HKEMS 138 1 - 8 - 0 15549 27094 11GR RTL 138 27095 11GR RVR 138 1 - 0	Base Case C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	-73.7	-179.0	-0.15410
UNIT2 G61	Arr B	750.0	646.2 *	0.36808	27553 14WILSOS 161 27561 14WILSO7 345 2	C: Open 27553 14WILSOS 161 27561 14WILSO7 345 1	181.9	419.7	0.20534
UNIT2 G61	ALL	750.0	646.2 *	0.36808	27553 14WILSOS 161 27561 14WILSO7 345 1		181.9	419.7	0.20534
UNIT2_G61	ALL B	750.0	655.5 +	0.09685	27020 11CORY T 161 27035 11MORGNF 161 1	C:Open 27020 11CORY T 161 27021 11CORYDO 161 1	32.4	95.9	-0.08134
UNIT2 G61	ALL_B	750.0	679.6	0.08521	0.42627 27061 11BONNIE 138 27141 11BHREMS 138 1	161	37.8	43.8	0,01298
UNIT2_G61	ALL B	750.0	4.507	-0.16295 -	11RQ TAP 161 1		9.99-	-181.6	
UNITZ_G61	ALL_B	750.0	733.5 •	0.21237	-0.36038 27028 11GR RV 161 27042 11RQ TAP 161 1	C:Open 27020 11CORY T 161 27028 11OR RV 161 1	101.5	727.7	866.7.0
UNIT2_G61	GROUP_1B	750.0	-528.4 *	-0.04290	MOBERLY 161 96354 STHMHIL 161 1	96150 7MCCRED 345 96162 7THOMHL	-357,3	-334.7	-0.05643
UNIT2 G61	GROUP_1B	750.0	15.1 R	0.05942	26855 10NEWIVE 138 26879 10GRNDVW 138 1	C:Open 27560 14HENDK5 161 27617 14HENDR4 138 1 C:Onen 26851 10CULLEY 138 26875 10ANGMND 138 1	176.9	175.5	-0.03127
UNITZ_G61	GROUP 18	750.0	33.3 R	0.26112	11GR RVR 138 2	27028 11GR RV 161	17.1	116.7	0.14735
UNITZG61	GROUP_1B	750.0	152.0 +	0.26090	27028 11GR RV 161 27095 11GR RVR 138 1	27028 11GR RV 161 27095 11GR RVR 138 2		116.7	0.14680
UNITZ_G61	GROUP_1B	750.0	176.4 •	0.05457	MOREAU 69.0 1	C:Open 30677 GUTHRIE 161 30805 JC FAIR 69.0 99	74.2	83.8	0.00877
UNITZGGI	GROUP_1B	750.0	201.0 *	0.03418	-0,31949 27109 11LEITCH 138 27240 11LEITCH69.0 1		139.6	157.8	0.05137
UNITZ G61	GROUP 18	750.0	252.9	0.08487	27126 110HIO C 138 2	11GR RVR 138	136.4	157.8	0.04681
UNITZG61	GROUP_1B	750.0	280.4 *	-0.03418	27109 11CBITCH 138 27141 11SHREWS 138 1	C.Open 27061 11BONNIE 138 27141 11SHRBWS 138 1	-72.2	-175.7	-0.08784
UNITZ G61	GROUP 18	750.0	285.4	0.05478	27271 11RQ TAP69.0 1	V 161 27042 11RQ TAP 161	39.0	54.6	0.01311
UNIT2 G61	GROUP_1B	750.0	327.3 *	0,09927	27141 11SHREWS 138 1	C:open 27240 11LETTCH69.0 27259 11OHIO C69.0 EQ	132.3	164.8	0.08828
UNIT2_G61	GROUP 18	750.0	413.6 *	-0.11834	0.59632 27079 11CLVRPR 138 27094 11GR STL 138 1		19.5	40.6	0.02785
UNIT2 G61	GROUP IB	750.0	465.8 *	-0.21513	27025 11EARL N 161 27042 11RQ TAP 161 1	27020 11CORY T 161 27028 11GR RV 161	-61.4	-181.6	-0.17800
UNITZ 061	GROUP IB	750.0	489.9	0.08691	31409 OVERTON 261 1	C:Open 96162 7THOMHL 345 96354 5THMHIL 161 1	245.0	287.6	-0 07531
UNIT2_G61	GROUP_1B	750.0	493.9	-0.05563	10NEWIVE 138 26857 10NEWIVE 161 1	C:Open 26851 loculiky 138 26879 luuknivu 130 1 Daga Came	43.5	116.7	
UNITZ G61	GROUP_1B	750.0	496.5	0.14735		221 MOBERLY 161 31222 MOBERLY 69.0	35.0	74.7	0.04637
UNIT2 G61	GROUP_1B	750.0	503.9	0.07828	31222 MOBERLY 69.0 1	69.0	34.8	7.4.7	0.04544
UNITZ 961	GROUP_1B	750.0	560.7	-0.09856	-	C.Open 31609 RIVMIN 1 138 31933 WALLEN 1 138 1	-41.2	5 5 6 5 7 7 8	0.03226
UNIT2_061	GROUP_1B	750.0	740.6	0.04396	0.29106 30026 APCH FLT 161 30027 APCH FLT69.0 1		:		
130 CTIMI	RC alload	750.0	15.0 R	0.05956	0,40677 26855 10NEWIVL 138 26879 10GRNDVW 138 1	14HENDR4 138	-176.9	-176.0	0.03419
UNITZ 961	GROUP 2B	750.0	31.5 R	-0.03380	26851 10CULLEY 138 26879 10GRNDVM 138 1	C:Open 26851 10CULLEY 138 26875 10ANGMND 138 1	77.1	116.7	0.13743
UNITZGEL	GROUP_2B	750.0	162.4	0.24354	27028 11GR RV 161 27095 11GR RVR 138 2		77.0	116.7	0.13691
UNIT2_G61	GROUP 2B	750.0	163.0 *	0.24334	11LEITCH 138 27240 11LEITCH69.0 1		72.1	6.97	0.00836
UNITZ G61	GROUP_2B	750.0	226.4	0.08036	138 27126 110HIO C 138 1	C:open 27095 11GR RVR 138 27126 11OHIO C 138 2	139.6	157.8	0.04331
UNITZGEI	GROUP_2B	750.0	273.4 *	0.07851	0.74075 27095 11GR RVR 138 27126 110HIO C 138 2	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	:		
	٠								

14.234 142.234 14.225 20.654 2

-55.5 45.2 -149.4

-18.8 36.1 -66.6 -128.6 234.1 234.1 67.3 -115.2

-43.1 101.4 101.4 9.6 -59.9 33.5

214.8

128 .2 65 .8 65 .7 65 .7 93 .3 93 .3 -55 .6 146 .8 -75 .0

162.3 43.5 43.3 52.9 82.6 75.2 53.1 117.9 20.2 -53.6 116.374 21.034 113.684 113.684 113.684 113.684 12.754 12.754 12.744 146.687 12.744 13.674 13.

-209.4 -128.7 -43.5 -60.3 -60.3 -60.9 -114.9 -53.6 -53.6 -60.9 -60.2 -20.5 -20

-128.2 161.2 65.8 65.8 65.7 67.7 67.7 99.3 -140.0 146.8 146.8 146.8 146.8 146.8 146.8 146.8 146.8 146.8

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC, 161 KV TIE OPEN)
G61P61OS; 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OS,sav; MON; PHC,mor; SUBSYST; PHC,sub; CONT; PHC,con; EXCL; PHC,EXC

17.451	37.821	22.174	20.124	23.878	25.60%	25.09\$	10.861	15.784	13.81%	13.814	2.214	7.354	2.424		18.951	154.83%	154.594	23.27	28.761	19.034	24.201	12.294	43.794	43.224	35.024	7.79	10.584	10.65	5.834	15.224	456.8	95¢. B	0.33	;	26.34	13.39	140.934	26.424	32.67\$	29.62	22.06%	39.524	23.791	43.94	18.95	17.011	35.414	14.841	23.38%	1.614	9.735	6.671	10.324
-55.6	23.8	146.8	C. B	-149.4			45.4	-127.4	234.1	234.1	-60.5	67.8	41.7		-128.3				93.3	-55.6	146.8	25.7	i		16.6	-105.6		44.8	-128.7	-149.0	234.1	234.1	1.611.		155.2	161.2	8.59	54.7	93.3	87.1	.55.5	23.6	-74.7	16.5	55.5	45.1			-128.6	101.3	234.1	-115.2	67.2
-53.1	20.2	117.9	-53.6	6.6.6			36.1	-43.1	101.4	101.4	-18.8	9	33.5		-128.7	43.5	43.3	52.9	82.6	-53.1	117.9	20.2	:		E. 4	-87.1		36.1	-43.1	9.99-	101.4	101.4	n.		168.0	162.3	43.5	52.3	82.6	75.2	-53.1	20.2	-53.6	4.3	-18.8	36.1		;	-65.6	95.4	101.4	154.9	9.6
-0.00836	0.01118	0.08182	-0.05973	0.02612			0.01692	0 14160	0.21999	0.21999	-0.06211	0.08620	0.01153		0.02278	0.16574	0.16512	0.00902	0.05013	-0.00902	0.08579	0.00445	. 02985		0.02761	-0.03663		0.01562	-0.15294	-0.14171	0.20481	0.20481	-0.07677		0.02534	76150.0-	0.15354	0.15296	0.05500	0.05012	05600.0-	0.09514	-0.05426	0.03019	-0.08038	0.01884		,	-0.16431	85600.0	6.2023	0.20727	0.08364
-81.8	54.6	164.8	-190.8	40.6	116.7	116.7	59.0	164.8	419.7	419.7	-148.4	6.26	73.8	- 181.	-176.0	116.7	116.7	78.9	157.8	-81.8	164.8	54.6	116.7	116.7	9.05	-190.8	164.8	0.68	-179.0	1,81.6	419.7	419.7	-1140.5	!	189.7	175.5	116.7	116.7	157.8	157.8	-81.8	164.8	-190.8	40.6	-148.4	116.7	116.7	164.8	-181.6	164.6	419.7	419.7	-140.5
-72.2	39.0	132.3	-141.9	2.61	43.5	43.3	41.3	117.9	187.9	181.9	-121.0	32.4	37.8	9 . 9 .	-176.9	77.1	0.77	72.1	139.6	-72.2	132.3	39.0	120.1	43.3	19.5	-141.9	117.9	41.3	-73.7	-121.0	181.9	181.9	-82.6	•	202.9	176.6	1.77	0.77	139.6	136.4	-72.2	132.3	141.9	19.5	-121.0	63.5	63.3	117.9	4.18-	152.1	181.9	181.9	-82.6
C.Ober 27061 11BONNIE 138 27141 11SHREMS 138 1	27028 11GR RV 161 27042 11RQ TAP 161	G:Open 27240 11LBITCH69.0 27259 11OHIO C69.0 EQ		C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	C:Open 2/020 11CORY I 151 2/028 11GR NV 151 1 Base Case	Base Case	C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1		C:Open 27561 14NILSO7 345 27563 14COLB 7 345 1	161 27561 14MILSO7 345	10CULLRY 138 26879 10GRNDVW 138	11CORY T 161 27021 11CORYDO 161	C:Open 27020 11CORY T 161 27035 11MORGNF 161 1	Base Case	14HENDRS 161 27617	26851 10CULLEY 138 26875 10ANGMND 138	11GR RV 161 27095 11GR RVR 138	27061 11BONNIE 138 27141 11SHREWS 138	11GR RVR 138 27126 11OHIO C 138	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	11LEITCH69.0 27259 110HIO C69.0	11GR RV 161 27042 11RQ TAP 161	C:Open 26013 08GRNTWN 138 26110 08MIER 138 1	Good Case	061 11BONNIE 138 27141	345 27142 11SMITH 138	CPC N NAMEL POULS	138 27152 11W LEBA	345 27563	C:Open 26851 10CULLEY 138 26879 10GRNOVW 138 1	27561 14WILSO7 345	14WILSOS 161 27561 14WILSO7 345	C:Open 27109 11LEITCH 138 27141 116HREWS 138 1	Bade Case	05NPROCT 765 23190	C:Open 27560 14HENDKS 161 27617 14HENDK4 138 1	11GR RV 161 27095 11GR RVR 138	11GR RV 161 27095 11GR RVR 138	C:Open 27061 11BONNIE 138 27141 118HREWS 138 1	27126 110HIO C 138	11BONNIE 138 27141 11SHREWS 138	27259 110HIO C69.0	C:Open 27028 11GR RV 161 27042 11RQ TAP 161 1	27141 11SHRBWS 138	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	Base Gase	C:Open 27061 1180NNIE 138 27152 11W LEBA 138 1		C:Open 27020 11CORY T 161 27028 11GR RV 161 1	C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1	345	27561 14HTL907 345	C:Open 27109 11LEITCH 138 27141 119HREWS 138 1
	O. PASSE SELL ACCCC CIPIC O	-0.57605 27126 110HIO C 138 27141	0.59632 27079 11CLVRPR 138 27094 11GR STL 138	-0.25375 27205 11E VIEW69.0	0.33947 27025 11EARL N 161 27042 11RQ TAP 161 1	27028 11GR RV 161 27095 11GR RVR 138	0.32160 27061 11BONNIE 138	- 27126 110HIO C 138 27141 115HREWS	-0.15549 27094 11GR STL 138 27095 11GR RVR 138	0,79255 27553 14WILSOS	0.79255 27553 14WILSOS 161 27561 14WILSO/ 345	0.68235 27020 11CORY T 161 27035 11MORGNF 161	0.45069 27020 11CORY T 161 27021 11CORYDO	27025 11BARL N 161 27042 11RQ TAP 161	0.40677 26855 10NEWTVL 138 26879 10GRNDVW	0.16225 26851 10CULLEY 138 26879	2 0.77504 27028 11GR RV 161 27095 11GR RVR 138 2	-0.31949 27109 11LBITCH 138 27240 11LBITCH	0.75819 27095 11GR RVR 138 27126 110HIO C	0.74075 27095 11GR RVR 138	-0.57605 27126 110HIO C 138 27141	0.21911 27216 11GR RVR69.0 27271	0,76899 23464 05HUNT J 138	4 - 27026 11GR RV 161 27095 11GK RVK 136 2 - 27026 11GR RV 161 27095 11GR RVR 138 1	-0.25375 27205 11E VIEW69.0	0.59632 27079 11CLVRPR 138	0 0.02522 27195 11DIXDAM69.0 27295 11MC-DD 69.0 1	0.32160 27061 11BONNEE 138 29227	-0.15549 27094 11GR STL 138 27095	-0.62960 26855 10NEWIVL 138	8 -0.09930 27025 11EARL N 161 27042 11RQ TAP 161 1	0.79255 27553 14WILSOS 161	0.42627 27061 11BONNIE 138	3 - 27195 11DIXDAM69.0 27295 11WC-DD 69.0 1	0.07024 22570 05SPORN 345 22987	0.40677 26855 10NEWTVL 138 26879	1 0.16225 26851 10CULLEY 138 26879 1UURNDVW 130 1 0 0 77504 27028 11GR RV 161 27095 11GR RVR 138 2	0,77439 27028 11GR RV 161 27095 11GR RVR 138	-0,31949 27109 11LEITCH 138 27240	0.75819 27095 11GR RVR	0,74075 27095 11GR RVR 138 27126	-0.57605 27126 110HIO C 138 27141	0.21911 27216 11GR RVR69.0 27271	0.59632	-0.253/5 2/205 ILE VIENGS:0 255/1 -0.62960 26855 10NEHTVD 138 26857	. 27028 11GR RV 161 27095 11GR RVR 138	0.32160 27061 11BONNIE 13B	27028 ILGR RV 161 27095 ILGK KVK 130 27028 110HTO C 138 27141 115HREWS 138	0.33947 27025 11BARL N 161 27042 11RQ TAP 161	-0,15549 27094 11GR STL 138 27095 11GR RVR	11 0.22525 27016 11ALCALD 161 27027 11FARLEY 161 X	0.79255 27553 14WILSOS 161 27561	0 42527 27061 11BONNIE 138
20120	0.04633	0.09205	-0.11638	0.04476	-0.19140	0.13691	0.03214	0.08182	-0.17807	0.39435	0.39435	0.09407	0.05038	-0,15822	0.04568	-0.02285	0.29372	0.03355	0.08477	0.08282	0.09650	0.03875	0.05442	0.16574	0.04709	-0.09942	-0.03600	0.03198	-0.18811	-0.04807	-0.16418	0.36714	-0.08062	-0.03663	0.02626	0.06302	-0.03281	0.27186	0.03686	0.09300	98060.0	0.10706	0.04957	-0.12573	0.05192	0.15354	0.03698	0,15296	-0.19896	-0.19620	0.02021	0.37154	
	1.105	353.0	420.6 *	470.7	523.6	535.7	551,2 *	573.4	591.0 +	603.2	603.2	674.9	713.0 *	727.0	19.6 R	46.5 R	134.7 *	204.7	214.7	259.2	336.7 +	403.5	427.6 •	441.4	447.5 •	492.3 +	504.4	546.9	5.655	571.5 *	581.7	647.9	718.3 *	741.2	-503.6 +		32.4 R	145.9	186.3 .	195.7	236.2	303.5	315.5 *	389.3	405.9	476.5	479.0 *	479.5	503.7	536.4	616.6	640.2	9
T TO THE LEVEL OF	0.087	250.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	150.0	150.0	750.0	750.0	750,0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.00
0.7	GROUP_2B	GEOUP 2	GROUP 2B	GROUP_2B	GROUP_ZB	GROUP 2B	GROUP_2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 2B	GROUP_2B	GROUP_2B	gRoup_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_JB	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP, 4B	GROUP_4B	GROUP 4B	GROUP_4B
#rot#	UNITZ_G61	UNITZ GEL	UNITZ G61	UNITZ G61	UNIT2_G61	UNITZ GB1	UNIT2_G61	UNITZG61	UNIT2_961	UNITZ_G61	UNIT2_G61	UNIT2_d61	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNITZ G61	UNIT2_061	UNIT2_d61	UNITZ_G61	UNIT2 G61	UNIT2_061	UNITZ 961	UNITZGEL	UNITZ_G61	UNITZ G61	UNITZ G61	UNITZ_G61	UNITZ G61	UNITZ G61	UNITZG61	UNIT2_G61	UNIT2_d61	UNITZ_de1	UNITZ_061	UNIT2 961	UNIT2_G61	UNIT2_G61	UNITZ G61	UNITZ G61	UNITZGEL	UNITZ GEL	UNITZ G61	UNITZ G61	UNITZ_G61	UNIT2_G61	UNIT2_G61	UNIT2 G61	UNIT2_d61	UNIT2_d61	UNITZ G61	UNIT2_G61	UNIT2_061	UNIT2_G61

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
661P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OS.sav; MON: PHC.mon; SUBSYST: PHC sub; CONT: PHC.con; EXCL: PHC EXC

193.3 1.01%		214.7 1.778.	250.2 16.75%	161.2 11.224	-52.6 43.078		65.8 147.534					36.24.236			93.1 15.924				-8.8 73.714		17.84%	39,124	-166.9 3.74*			-129.3 25.705			N	234.1 8.45%		43.0 5.28%	214.7 0.984		161.2 10.71%	_	_	91 7 26.17				-149.7 45.18*		16.5 27.72%	26.891		45.6 10.924		7.794	39.2 12.454	-20.7 21.804
33.5		65.7	279.7	162.3	-54.8	91.5	43.5	4 S.	-73.2	82.6	75.2	.53.1	-60.5	•	8.66	2.02	e. 4	9.05-	4. 8.			;	36.1			9.99-	5.5-	6.65-		101.4	'	33.5	85.7		-128.7			52.9				117.9	•	4.3				-18.8			-4.6
0.01332		0.17687	0,01393	0.02760	0.05320	0.01526	0.15933	0.15873	0.02206	0.05862	0.05341	-0.00988	0.03013	-0.08093	-0.02088	0.01002	0.03200	-0.04449	-0.03210				0.01806	-0.08093	-0.02685	-0.16160	-0.16505	-0.09185	-0.03926	0.20325	0.08674	0.01411	0.17461		0.02657	0.14023	0.13970	0.00792	0.01686	0.04275	-0.00792	0.07966	-0.05108	0.02494		0.11236	0.01732	-0.06539		0.00961	-0.02690
73.8	-181.6	257.2	343.6	-176.0	-84.7	158.0	116.7	716.7	-95.1	157.8	157.8.	87.8	- 94.4	-217.0	142.0	54.6	40.6	190.8	-58.7	116.7	164.8	116.7	59.0	-215.7	-59.0	-181.6	-179.0	-140.5	-83.7	419.7	95.9	73.8	-181.6		-176.0	175.5	116.7	78.9	54.6	157.8	-81.8	164.8	-190.9	40.6	116.7	95.9	0.65	-148.4	164.8	73.8	-26.2
37.8	9.99-	101.5	386.1	176.9	6.98-	156.3	1.17	77.0	1.7/	139.6	136.4	-72.2	-100.7	-193.5	158.8	39.0	19.5	-141.9	. 0	-121.0	9.711	43.3	41.3	-175.8	-12.5	-61.4	-73.7	9.29	26.1	181.9	32.4	37.8	9.99.		-176.9	176.6	77.0	72.1	39.6	136.4	-72.2	132.3	-81.4	19.5	2.5	32.4	41.3	-121.0	117.9	37.8	
C:Open 27020 11CORY T 161 27035 11MORGNF 161 1	Base Case	C:Open 27020 11CORY T 161 27028 11GR RV 161 1	18012 SPARADIS 161 18926	27560 14HENDRS 161 27617 14HENDR4 136	11BRWN N 345	29432 20MAYSVJ 138 29566 20SPURLK 138	27028 11GR RV 161 27095 11GR RVR 138	11GR RV 161 27095	27061 11BONNIE 138 27141 11SHREWS 138 27062 1181-2817 345 27004 11BRWN N 345	27095 11GR RVR 138 27126 110HIO C 138	27095 11GR RVR 138 27126 11OHIO C 138	27061 11BONNIE 138 27141 11SHREWS 138	C:Open 27012 118MITH 345 27142 118MITH 138 1	11101 8BAD CRK 500 11102 8JOCASSE 500	29386 20JKSMIT 161 29500 20PONELL 161	27028	27141	27012 11SMITH 345 27142 11SMITH	05 FULLER 138 23173	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1			27061 11BONNIE 138 27152 11W LEBA	C:Open 27064 11BRWN N 138 27101 11HIGBY 138 1	OSFULLER 138 23173 OSMILLBR	27020 11CORY T 161 27028 11GR RV	27561 14MIL907 345 27563	C:Open 23051 OSFULLER 138 231/3 USMILLER 138 1 C:Open 22109 111811CH 138 27141 119HREW9 138 1	23051 05FULLER 138 23173 05MILLBR 138	27553 14WILSOS 161 27561 14WILSO7	14WILSOS 161 27561 14WILSOV 345	161 27035 11MORGNF 161		G:Open 27020 11CORY T 161 27028 11GR RV 161 1	27560 14HENDRS 161 27617 14HENDR4	26851 10CULLEY	11GR RVR 138	27061 11BONNIE 138 27141 11SHREWS 138	27095 11GR RVR	110HIO C 138	27061 11BONNIE 138	27240 11LBITCH69,0 27259 11OHIO C69.0	27020 11CORY T 161 27028 11GR RV 161	11BONNIE 138 27141 118HRENS	Base Cade	Bade Case	27152 11H LEBA 138	26951	Base Case	Base Case C:Open 27020 llCORY T 161 27035 llMORGNF 161'l	CE of the second
0.45069 27020 11CORY T 161 27021 11CORYDO 161	-0.02352 26030 OBBATESV 138 25182 07808968 - 27025 11EART, N 161 27042 11RO TAP	-0.36038 27028 11GR RV 161 27042 11RQ TAP 161	0.41330 18012 SPARADIS 161 18691 SBOWL GR	0.40677 26855 10NEWTVL 138 26879 10GRNDVW	0.16225 26851	0.08991 29496 ZUPTIISH 161 29602 -0.47949 27090 IIPLEMIN 138 27093	0.77504 27028 11GR RV 161 27095	0.77439 27028 11GR RV 161 27095	-0.31949 27109 11LEITCH 138 27240 11LEITCH	0.0/226 2/023 IIDEAVIN 151 2/045 0 75819 27095 1358 808 138 27126	0.74075 27095 11GR RVR 138 27126 11OHIO C	0 31949 27109 11LEITCH 138 27141 11SHREWS	-0.09775 27126 110HIO C 138	-0.41989 2/086 11FARM 1 136 2/175 115FRM -	0.32764 27034 11LR TAP 161 27045 11WI TAP	0.21911 27216 11GR RVR69.0 27271	-0.77645 24067 05GRAYSB69.0 29198 20ARGTM 69.0 1	0.59632 27079 11CLVRPR 138 27094	0.77645 24067 0SGRAYSB69.0 24077	-0,62960 26855 10NEHTVL 138 26857	- 27028 11GR RV 161 27095 11GR RVR 138 2	- 27028 11GR RV 161	0.32160 27061 11BONNIE 138 29227	-0.29190 27057 11BKR LN 138 27064	11084 SNANTARA 161 11172 SKOBBINS 161 1 0 4848R 24084 OSPLYM.G69.0 24091 OSN HAVH69.0 1	0.33947 27025 11EARL N 161 27042	-0,15549 27094 11GR STL 138 27095	0.48488 24077 05FRANKN69.0	1,00000 29196 20ARGTM 138 29198	0.79255 27553 14WILSOS 161 27561	0.79255 27553 14WILSOS 161 27561	5 0.68235 27020 11CORY T 161 27035 11MORGNF 161 1	27025 11EARL N 161 27042 11RQ TAP	5 -0.36038 27028 11GR RV 161 27042 11RQ TAP 161 1	0.40677 26855 10NEWIVE 138 26879 10GRNDVW 138	0.16225 26851 10CULLEY 138 26879 10GRNDVW 138	1 0.77504 27028 11GR RV 161 27095 11GR RVR 138 2	-0.31949 27109 11LBITCH 138 27240 11LEITCH69.0	0.75819 27095 11GR RVR 138 27126 110HIO C 138		0.74075 27095 ILOK KVK 136 27120 1120110 C 138	-0.57605 27126 110HIQ C 138 27141 115HREWS 138	0.33947 27025 11EARL N 161 27042 11RQ TAP 161	1 0.59632 27079 11CLVRPR 136 27094 11GR STL 138 1	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095		0.32160 2/051 LABORNIE 130 2/11 CONTROL 161 - 0.62960 26855 10NEWTVL 138 26857 10NEWTVL 161	27025 ILEARL N 161 27042	27126 1	0.45069 27020 ILCOKY I 161 27021
0.05333	0.03328	0.21366	0.02007	0,05591	-0.02773	0.05157	0.28235	0.28211	0.03923	0.02075	0.09683	-0.03923	0.11508	0.02154	-0.05255	0.04828	0.13689	-0.12596	-0.13689	-0.06259	0.15933	0.15873	0.03833	-0.02942	-0,06093	-0.19584	-0.20146	-0.09229	-0.09506	0.36433	0,36433	0.09636	-0.16160	0.21095	0.04822	Ċ	0.24851	0.24830	0.07933	0.06363	0.07750	0.08947	-0.24299	-0.10581	0.14023	0.13970	0.11892	0.03219	-0.20158	0.07966	0.06025
673.7	676.B •	729.1	-2118.3 *		38.3 R	41.6 R 84.7 *	140.1	140.6	175.1	182.1 R				290.1 R		323.9	371.5 *	388.6		439.0	459.2	462.1	462.2 *		493.2 *				630.6			658.8			18.6 %	40.1		222.7				363.2			521.7			550.3			596.3
750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
TP_G61 GROUP_4B 750.0 673.7 *	GROUP_48	GROUP_4B	GROUP SH	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	dROUP 5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SH		GROUP_58		GROUP SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_58	GROUP_SB	89 011040	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_GB	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP 6B	as attoas.
Prom UNITZ_G61	UNITZ G61	UNIT2_G61 UNIT2_G61	190 211	UNIT2_061	UNIT2_961	UNIT2_GG1	UNIT2 G61	UNITZ_G61	UNIT2_G61	UNITZ_G61	UNITZ G61	UNITZ 961	UNIT2_061	UNITZ_G61	UNIT2 G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNIT2 G61	UNITZ_G61	UNITZ_G61	UNITZ_G61	UNITZ_061	UNIT2_G61	UNITZ_d61	UNIT2 G61	UNIT2 G61	UNIT2_G61	UNITZ_G61	UNITZ G61	UNITZ_061	UNIT2 G61	UNITZ G61	UNIT2_G61	130 (21)	UNIT2 G61	UNIT2_G61	UNITZ_G61	UNIT2 G61	UNITZ_G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNIT2_061	UNIT2_d61	UNITZ GGI	1000

10.974	, ,	4.95	3.094	23.114	11.664	137.474	137.244	19.03	28.344	20.78	44.64	27.361	21.871	40.144	5.434	10.784	17.021	34.00%	33.461	13.414	18.87	14.804	7.34	49.264	B.264	8.68	5.224	1.30%	1.20%	1.684	31.041	10.29₺	57.62\$	57.461	35.424	35.42%	5.834	10.284	11.234	16.54	4.974	17.10%	24.69%	12.641	144.074	24.59%	30.431	27.43\$	20.30\$	26.28\$	35.264	38.77	37.72%	37.17	9.394	13.941
-128.8	234.1	234.1	14.7	-128.3			65.7				23.8	146.8	-75.7	16.4	100.5	1.54.7	45.5				-74.2	-128.7	41.5	234.1	234.1	:	214.7	-104.2	-104.3	-20.7	153.8	-128.5	65.8	65.7	234.1	234.1	87.1	4. 64.	191.2	-118.8	23.5	-104.0	-128.2	161.2	65.8	54.7	93.3	87.1	9.55-	146.8	23.2	16.6			-55.8	1 27
1.64	101.4	101.4		-128.7	162.3	43.5	63.3	, v	9.72	7.67	20.2	117.9	-53.6	4.3	95.4	-18.8	36.1				-42.5	. e	9 60	101.4	101.4	;	, 54. 7. 7. 7.	-76.2	-76.2	-4.6	162.3	-128.7	43.5	43.3	101.4	101.4	75.2	-53.6	25.1	9.99-	20.2	-43.1	-128.7	162.3	43.5	63.3	92.9	75.2	-53.1	117.9	50.5	. 4	;		-18.8	
-0.13566	0.19234	0.19234	0.02743	0.02868	-0.02798	0.15050	0.14993	0.00891	0.05337	0.04864	0.0032	0.09200	-0.05445	0.02878	0.01173	-0.07549	0.01954				-0.06090	-0.15305	0.09518	0.20265	0.20265		-0.08309	-0.03916	-0.03909	-0.02194	0.00528	-0.00583	0.08039	60080.0	0.02470	0.28745	0.02251	-0.07416	0.04254	-0.08170	0.00511	-0.09338	0.03110	-0,03039	0.15630	0.15571	0.00915	0.05221	-0.00915	0,08985	0.00889	-0.04935	0.02865		-0.07425	
-179.0	419.7	419.7	55.0	176.0	175.5	116.7	116.7	6.87	157.8	157.8	0.10	164.8	-190.8	40.6	164.6	-148.4	0.65	116.7	116.7	164.8	-129.9	-179.0	95.9	419.7	419.7	-181.6	-140.5	-154.0	-154.1	-26.2	175,5	-176.0	116.7	116.7	157.8	419.7	157.8	-190.8	164.8	-181.6	54.6	-179.0	-176.0	175.5	116.7	116.7	78.9	157.8	-81.8	164.8	54.6	-190.8	116.7	116.7	-148.4	
	181.9	181.9	7.5	176 9	176.6	17.7	77.0	72.1	139.6	136.4	2.27	132.3	-141.9	2.61	152.1	-121.0	-61.4	43.5	43.3	117.9	-74.4	-73.7	32.4	181.9	181.9	9.99-	-82.6	-112.6	-112.6	-3.3	212.6	-176.9	17.1	0.77	139.6	181.9	136.4	-141.9	87.2	-7.9	39.0	24.5	9.321-	176.6	17.1	77.0	72.1	136.4	-72.2	132.3	39.0	-141.9	19.5	43.3	-121.0	į
C:Open 27561 14WILSO7 345 27563 14COLB 7 345 1	27561 14WILSO7 345	27553 14WILSOS 161 27561 14WILSO7	C:Open 27025 llEARL N 161 27042 llRQ TAP 161 l C:Open 27025 llEARL N 161 27042 llRQ TAP 161 l	1 BC1 Addunds to and a second to 1 BC1 I Second	10CULLEY 138 26875 LOANGMND	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR	27061 11BONNIE 138 27141 11SHREWS 138	27095 11GR RVR 138 27126 11OHIO C	27095 11GR RVR	Z/U61 11BONNIE 138 Z/141 LISHKEWS	Z7028 IIGK KV Ibi Z7042 IIKŲ IMP	119MITH 345 27142 115MITH 138	27061 11BONNIE 138 27141 11SHREWS	27002 11ALCALD 345 27011 11PINEVI	26851 10CULLSY 138 26879 10GRNDVH	C:Open 27020 11CORY T 161 27028 11GR RV 161 1	Ciopen 2/001 Libonnie 150 2/152 iin heat 150 1	Dade Cases	Base Case	BADIN 100 11192 ALBEMARL	14NILSO7 345 27563 14COLE 7	27020 11CORY T 161 27021	C.Open 27020 IICOKY F 161 27035 IIMOKON 161 I	14HILSOS 161 27561 14HILSO7 345		27141 11SHREWS	C:Open 27020 11COKY I 161 27028 11GK KV 161 1	11291 OAKBORO 100	27293 11WALKER69.0	138 1 14RNDR4 138 1	26861 10ABBRWN 138 27617 14HENDR4	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	27095 11GR RVR 138 27126 110HIO C	CiOpen 27553 14MILSOS 161 27561 14MILSO7 345 1	27095 11GR RVR 138 27126 11OHIO C 138	27012 11SMITH 345 27142	27028 11GR RV 161 27553 14WILSOS	C:Open 27561 14MILSO7 345 27563 14COLK / 345 1 C:Onen 27028 11GR RV 161 27553 14WILSO5 161 1	27028 11GR RV 161 27042 11RQ TAP	27028 110R RV 161 27553	OCT YOUNGERY TOUTH TOUTH THE TOUTH	C:Open 2/560 14HBNDKS 161 2/61/ Interest 136 1	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR 138	27061 11BONNIE 138 27141 11SHREWS 138	Open 27095	27095 11GR RVR 138 Z7126 11OHIO C 138 27061 11RONNIE 138 27141 11SHREWS 138	11LEITCH69.0 27259	27028 11GR RV 161 27042 11RQ TAP	27142	C:Open 27061 11BONNIE 138 27141 115HREWS 138 1	Bace Case Gase Case	Dade Cabe C.Omen 26851 10CULEY 138 26879 10GRNDVW 138 1	ICCOPPEX TRR SPRIA TORKNOW TRA
-0.15549 27094 11GR STL 138 27095 11GR RVR	0.79255 27553 14WILSOS 161 27561 14WILSO7 345	0.79255 27553 14WILSOS 161 27561 14WILSO7	0.20359 27020 11CORY T 161 27028 11GR RV 161 1 -0.18932 27197 11EARLIN69.0 27293 11WALKER69.0 1		0.40677 26855 IONEMIVE 138 26879 IOGRNDVW 138 1 0.16225 26851 10CULLEY 138 26879 10GRNDVW 138 1	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095	27109 11LEITCH 138 27240	27095 11GR RVR 138 27126	11GR RVR 138 27126 110HIO C	27109 11LEITCH 138 27141	11GR RVR69.0 27271	-0.57605 27125 110HIO C 138 27141 115HKEWS 138 1	27205 11E VIEW69.0 29571	27016 11ALCALD 161 27027	10NEWTVL 138 26857 10NEWTVL 161	11EARL N 161 27042	0.32160 27061 11BONNIE 138 2922/ 20BUNNIE69.0 I	11GR RV 161 27095	110HIO C 138 27141		27095	27020 11CORY T 161 27035	27020 11CORY T 161 27021 11CORYDO	0.79255 27553 14WILSOS 161 27561 14WILSO7 345 2	27025 11EARL N 161 27042 11RQ TAP	11BONNIE 138 27141	-0.36038 27028 11GR RV 161 27042 11RQ TAP 161 1	ALBEMAND 100 11291 OAKBORO	11HARDST69.0 27293 11WALKERE		0.42491 26851 1000LLEI 238 28879 1006NDVW 139 1	27028 11GR RV 161 27095 11GR RVR	11GR RV 161 27095 11GR RVR	27095 11GR RVR 138 27126 11OHIO C	27553 14WILSOS 161 27561	110HIO C	27079 11CLVRPR 138 27094 11GR STL	27126 110HIO C 138 27141 118HREWS		27271	27094 11GR STL 138 27095		10NEWTVL 138	0.16225 26851 10CULUEY 138 268/9 10GKNDVW 138 1 0 77504 27028 11GB BV 161 27095 11GB RVR 138 2	27028 11GR RV 161 27095 11GR RVR	27109 11LEITCH 138 27240	27095 11GR RVR 138 27126 110HIO C	27095 11GR RVR 138 27126 11OHIO C	0.31949 27109 11LBITCH 138 27141 11SHRBWS 138 1	27216 11GR RVR69.0 27271	27079 11CLVRPR 138 27094	-0.25375 27205 11E VIEW69.0 29571 205TE	27028 11GR RV 161 27095 11GR	27028 11GR RV 161	A CARGO REGION TOWNS AND SERVED TONEWINE 161 1
-0.16659	0.34477	0.34477	0.06560		0.05542	0.26670	0.26648	0.03546	0.09025	0,08817	-0.03546	0.05330	0.10345	0.04986	0.02858	-0.05787	-0.21085	0.03699	0.14993	0.09200	-0.10668	-0.18814	0.10359	0.05522	72636.0	-0.17435 -	-0,08689	0.22550	-0.05779	-0.03112		0.02316	0.14246	0.14234	0.04176	0.51527	0.51527	-0.09134	0.14187	0.19327	-0.27166	-0.31215		0.05915	-0.03105	0.27674	0.03494	0.08829	0.08625	-0.03494	0.10108	-0.11453	0.04912			
١.	€89.9	689.9	722.1 *	:	16.1 R	148.3 *	148.8 *	193.7 *	201.6	243.4	270.3 *	293.4	314.1		436.0 +			478.9	7.004	510.0	520.3 *	\$ \$1655	612.9	£20,6 ¢	654.8 *	8.659	. 5.999	690.8 *	718 6 4	735.4 *	:	-1600.7	277.7	278.6 *	435.8 *	461.6 *	461.6 *	535.9 *	547.1 *	618.2 *	639.6	651.7		15.1 R	34.2 %	143.3	196.6	206.1 *	248.8 *	274.3 *	321.4	427.4	429.0 *	468.1	471.0	
750.0	0.027	750.0	750.0	i	750.0	750.0	750.0	750.0	150.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	750.0	0.057	750.0			0.05/	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	
GROUP_68	OROUP_6B	GROUP_6B	GROUP 6B	1	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 78	GROUP_7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP 7B	GROUP_TB	GROUP, 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_78	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B		GROUP_8B	GROUP_8B	GROUP SB	GROUP_8B	GROUP_BB	GROUP_8B	GROUP RR	GROUP BB	GROUP_BB	GROUP 8B	GROUP_8B		GROUP_NB	GROUP NB	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	BN_40085	GROUP_NB	GROUP NB	GROUP_NB	
UNIT2_G61 GROUP_G8	UNIT2 G61	UNITZGE1	UNIT2_G61 UNIT2_G61		UNITZ_G61	UNIT2_G61	UNITZG61	UNITZ_G61	UNIT2_961	UNIT2_661	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNIT2 G61	UNITZ G61	UNIT2_G61	UNITZ G61	UNITZ_G61	UNII2_661	UNITZ G61	UNIT2 G61	UNIT2_661	UNITZ_661	UNITZ_G61	UNITZ_G61	UNIT2 961	UNITZ_G61	UNIT2_061	UNIT2_G61	UNITZ G61		UNITZ G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNITY GET	UNIT2 G61	UNITZ_G61	UNIT2_G61	UNIT2_d61	785-711	UNIT2_G61	UNITZ G61	UNIT2_061	UNITZ GEI	UNIT2_061	UNITZ_G61	UNIT2_061	UNIT2_G61	UNITZ G61	UNITZ G61	UNITZG61	UNIT2 G61	1

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
661P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OS.ast, MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

E. SES

N
1 C:Open 27553 2 C:Open 27553 1 C:Open 27020 1 C:Open 27109 1 C:Open 27109
C:Open 27553 G:Open 27020 C:Open 27109 C:Open 27020
G:Open 27020 C:Open 27109 C:Open 27020
1 Base Case
1 C:Open 27560 14HENDRS 161 27617 14HENDR4 138 L
OCULLEY 138 26879 10GRNDVW 138 1 C:Open 26851 10CULLEY 138
C:Open 27028 11GR RV
C:Open 27028 11GR RV
C:Open 27061 11BONNIE 138
C:Open 27095 11GR RVR 138
C:Open 27095 11GR RVR 138
C:Open 27061 11BONNIE 138
C:Open 27028 11GR RV 161
C:Open 27240 11LBITCH69.0 27259 11OHIO C69.0
C:Open 27012 118MITH 345
C:Open 27061 11BONNIE 138
C:Open 27002 11ALCALD 345 27011 11PINEVI 345
C:Open 26851 10CULLEY 138
L C:Open 27020 11CORY T 161 27028 11GR RV
LBONNIE 138 29227 20BONNIE69.0 1 C:Open 27061 11BONNIE 138 27152 11W LEBA
2 Base Case
L Base Case
Base Case
C:Open 27561 14WILSO7 345 27563 14COLE 7 345
C:Open 11067 BADIN . 100
C:Open 27020 11CORY T 161 27021 11CORYDO 161
C:Open 27020 11CORY T 161
C; Open 27553 14WILSOS 161
C.Onen 27553 14911,505 161
act order trace see the see to the trace of
1 C:Oben 2/109 IIne
C:Open 27020 11CORY T 161 27028 11GK KV 161 1
C:Open 27269 IIPRINCE69.0 27293 IIWALKER69.0

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G6/F6/CW: 1600 MW 5101 BETWEENE GREEN RN' 161 PARADISE 161
IF Case: G6/F6/CW(SAS), MON; PHC, mon; SUBSYST; PHC, sub; CONT; PHC, con; EXCL; PHC, EXC

G61P610W+UNIT2 G61.TRA FCITC MULTIPLE TRANSFER REPORT:

MUST Title: ... MUST 3.20 ... THU, JAN 11 2001 12:19 ...
Titles: 2004 HITTER ERK ECKH BASE CASE (PHC 151 KV TIE OFEN)
Titles: Galfelow 1500 PM #FLIT BETHERN GREEN RIV 151 & PRANDISE 161
MONITOR File: C:\BV-USERS\NOBON\PMC.mon
CONTINGENCY File: C:\BV-USERS\NOBON\PMC.mon
Subsystem File: C:\BV-USERS\NOBON\PMC.mub

200.00		
analarem itte: c. (p. copy) (nopo) (terrana		
900-101-1	none	
	File:	
adog been	Exclude File: none	

Prod	94		Posts.		2000000	Con	toon Profitte	Linke	Pto#	THERMOS. F	10666	10
UNIT2_G61	ALL_B	750.0	-4077.0 *		BBULL RU	8MBNP 1 500 18468 8VOLUNTE 500	1810.6	1724.0	0.02046	1264.6	1181.2	5.95
UNIT2_G61	ALL_B		-4019.0 *	0.02502	BJVILLE 500	BCUMBERL 500	1831.9	1731.4	0.00136	835.1	829.6	6.89%
UNITZ G61	ALL B	750.0	28.9	0.27057	11GR RV 161	11GR RV 161 27095	124.3	132.2	0.15269	7.0		147.324
UNIT2 GEI	Ald B	750.0	29.4	1.27034	0.77429 27018 110K KV 161 27095 110K KVK 138 1 -0 07826 27019 118118 1.161 29248 208177 C 161 1	C:Open 27079 11CINERE 138 27144 11TIPTOP 138 1	240.6	239.9	-0.01726	237.6		6.48%
UNITZ 961	Att B	750.0	70.3	-0.11672	11CLVRPR 138 27094	11SMITH 345 27142	-181.1	-189.3	-0.05117	-36.7	-40.3	41.91
UNITZ G61	ALL B	750.0	79.3 •	0.08873		11GR RVR 138 27126	164.8	171.8	0.05247	8.76	101.6	34.66%
UNIT2_G61	ALL B	750.0	125.4 *	0.08669	0.74073 27095 11GR RVR 138 27126 110HIO C 138 2	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	161.0	171.9	0.04782	88.8	94.8	31.484
UNIT2_G61	ALL_B	750.0	165.8 *	-0.12099	11SMITH 345 27142	27099 11HARDBG 138 27100 11HARDN 138	-287.2	-307.3	-0.11002	-242.4	-260.6	22.994
UNIT2_G61	ALL_B	750.0	166.8	0.03516	11LEITCH 138 27240	27061 11BONNIE 138 27141 11SHREWS	1.08	86.0	0.00912	54.1	9.55.6	Z3.80*
UNIT2_G61	ALL_B	750.0	169.4 *	-0.12099	11HARDN 345	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	-285.5	-306.0	-0.11002	-240.7	6.862-	17 055
UNIT2_G61		750.0	215.3 R	-0.05868	10CULLEY 138 26879	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	188.6	176.0	-0.029.0	143.3	6.001	79.73
UNIT2_G61	ALL_B	750.0	406.1	0.15269 -	27028 11GR RV 161 27095	Base Case	70.2	132.2				191.05
UNITZ_G61	ALL	750.0		0.15212 -	27028 11GR RV 161 27095		6.69	7.75.		•	22	29.584
UNIT2_G61	ALL_B	750.0	440.4	0.04950	11E VIEW69.0 29571	COOPER 27061 LIBONNIE 136 27191 LIBHERS 136 L	9	9 6	0.01823	8.85	48.2	12.28
UNIT2_G61	ACL_B	750.0	513.4 *	. 0.03537	0.32160 27061 11BONNIE 138 29227	061 11BONNIB 138 2/152 11W DBBA 138		0.10	0.010		2	5.73
UNIT2_G61	ALL_B	750.0	589.6	-0.11002 -	27012 11SMITH 345 27142 11SMITH		4.282.	5.705				5.63
UNIT2_G61	ALL B	750.0	593.B	-0.11002 -	27006 11HARDN 345 27012		7.047	9	29000	143.2	201.6	4.651
UNIT2_061	ALL_B	750.0	644.3 *	0.10131	110HIO C 138	ISMITH 345 27142 IISMITH	1.94.1	231.9	40000	. 44	-149 4	7.00
UNIT2_G61	ALL_B	750.0	• 9.5.9	-0.19077	11GR STL 138 27095	345	9.5.4	-202.	POSST 0		. ,,,,,	5 444
UNITZ_D61	ALL B	750.0	688.5 *	0.37016	14WILSOS 161	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	164.9	419.7	0.205.0	0. 10		2 44 5
UNIT2_G61	ALL_B	750.0	688.5	0.37016	0.79255 27553 14WILSO5 161 27561 14WILSO7 345 1	C:Open 27553 14WILSO5 161 27561 14WILSO7 345 Z	4.4.9	. 614	00000	2		;
;		i i		0	t the Athense above the Windows tente cores a	C.Onen 96150 7MCCBED 345 96162 7THOMHE 345 1	-354.7	-334.7	-0.05352	-222.1	-196.2	15.23
ONITZ GET	GROUP 1B	0.067	. 6.604-	0.01129	PECON TAT TONGON	ERKN 138	-305.0	-286.2	-0.02336	-156.4	-146.7	18,51
UNITZ GEI	GROUP_1B	750.0	. 0.616.	0.04567	118 10650	FRKN 138 30650 GRAY SUM 138	-305.0	-286.2	-0.02336	-156.4	-146.7	18.51
UNITZ GEI	GROUP IB	0.067		20000	MODERTY 161 31222	MORRELY 161 31222	88.5	75.0	0.04068	52.1	44.2	\$40.78
UNITZ GET	GE GLOOD	0.067	0.561	00000	MORPELY 161 11222	MOBERLY 161 31222	87.9	75.0	0.03986	51.0	43.5	85.88
ONITZ GET	GROUP_LB	750.0		26165	1148 RV 161 27095 1148 RVE	11GR RV 161 27095	124.3	132.2	0.14765	70.2		142.46
140-7	aront Ta	0.067		0.50103	1100 BV 161 27095	11GR RV 161 27095	124.2	132.2	0.14710	6.69	74.4	142.26%
UNITZ G61	GROUP_1B	750.0	4.05	0.26143	110K KV 161 20248	11GR RV 161	241.3	239.9	-0.01484	237.6	236.6	6.07
UNITZ GET	GROUP 1B	150.0	7 4	-0.04148	Part and There	11SMTTH 345	-181.1	-189.3	-0.05469	-36.7	-40.4	42.60%
CNITZ GEL	GROUP_IB	0.06/	7.69	BEST 0-	Service and manager	22005 110H DVB 138 27126 110HIO C	164.8	171.8	0.05147	97.5	101.6	33.924
UNITZ G61	GROUP_1B	750.0	9.08	0.08703	STILL BUT AND THE STILL	138	161.0	171.9	0.04690	88.8	94.8	30.76
UNITZ G61	GROUP 1B	0.067	127.9	0.0000	07777 051	1180NNIE 138 27141	1,08	86.0	0.00885	54.1	55.6	23.03
UNIT2_G61	GROUP_1B	750.0		0.03428	Liberica 130	138 27100 11HARDN	-287.2	-307.3	-0.10702	-242.4	-260.8	21,951
UNIT2_G61	GROUP_1B	750.0	177.8	-0.116/9	HITCHIE STATE OFF HITCHIES	1 2	-285.5	-306.0	-0.10702	-240.7	-259.5	21.91
UNIT2_G61	GROUP_18	750.0		-0.116/3	MILITARY STATE AND	161 27617 14HRNDR4	188.6	176.0	-0.03116	143.3	136.8	18.35
UNITZ_G61	GROUP_1B	750.0	Z11.0 K	-0.05987	TOCOURS 138		-65.0	-95.7	-0.07921	-25.4	-51.9	39.71
UNITZO61	GROUP_1B	750.0	335.1	-0.09160	MARIES 138 96292 SMAKIES	7TUOMU1. 145	259.4	289.9	0.08125	188.6	216.7	12.324
UNIT2_d61	GROUP_1B	750.0	9.9	62890.0	OVERIOR 349 SIACS OVERIOR		70.3	133.2				36.87
UNIT2_G61	GROUP_1B	750.0	419.9	0.14765	LIGH KV 161	0.69 STEP 35 30805 151 STEP 69.0	99 49.5	83.9	0.06388	38.8	66.2	30.76%
UNIT2_G61	GROUP_1B	750.0		0.08028	MOREAU 161 31240 MOREAU			51.8	0.02797	9.6	22.0	27.661
UNIT2_G61	GROUP_1B	750.0	452.6	0.04817		138	49.6	67.8	0.01852	38.8	48.4	11.99
UNIT2_G61	GROUP_1B	750.0	517.2	0.03511	LIBORALE ISS 25221	27012 11SMITH 345	166.7	231.9	0.08846	143.2	201.6	3.84
UNIT2_G61	GROUP_1B	750.0	5 099	28960.0		14WILSO7 345	-73.6	-202.5	-0.14988	-44.7	-149.3	4.721
UNITZ G61	GROUP_1B	750.0	698.2	-0.18461	Lidk Sib 138	161 27561 14WILSO7	164.9	419.7	0.20311	92.0	234.2	4.35
UNITZ G61	GROUP_18	750.0	100.0	0.36408		14WILSOS 161 27561 14WILSO7	164.9	419.7	0.20311	92.0	234.2	4.354
UNIT2_G61	GROUP_18	750.0	700.0	0.36408	TAMILSON TOT 2/301	ELDON 161 96168 SBARNET 161	9.36.	-143.0	-0.09013	-26.7	-92.0	2.594
JNIT2_061	GROUP_18	750.0	724.5	-0.146BU						i		107
	ac alload	750.0	32.3 *	0.24214	0,77495 27028 11GR RV 161 27095 11GR RVR 138 2	11GR RVR	124.3	132.2	0.13664	70.2		400
UNITZ GEL	GROUP_2B	750.0	32.9	0.24193	11GR RV 161	11GR RV 161 27095 11GR RVR	124.2	132.2	0.13613	6.69		131.20¢
190 CTINO	geoffe 28	750.0	S 0.65	-0.02342		27028 11GR RV 161 27553 14MILSOS	241.3	239.9	-0.01611	237.6	9.957	100
ONITE GET	ar lander	0.007	20.7	-0.11593		C:Open 27012 11SMITH 345 27142 11SMITH 138 1	-181.1	-189.3	-0.05955	-36.7		745
UNITE DEL	agollo 28	750.0	88.2 *	0.07975	11GR RVR 138	27095 11GR RVR 138	164.8	171.8	0.04717	5.7.5	9.104	37.66
UNITZ G61	GROUP 2B	750.0	139.5	0.07792	11GR RVR 138	27095 11GR RVR 138	161.0	171.9	0.04298	54.1		20.72
					and the same	C:Open 27061 1180NNIE 138 27141 115HREWS 138 1	1.08	٥. د	*****			
1961	GROUP 2B	750.0	185.5 *	0.03162	-0.31945 27109 11DEITCH 138 27240 11DEITCH69.0 1				0.00463	A CAC.	-261.1	18.191

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MM SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OW sav; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

Comment of the second

Section 1

144	246	624	104	300		180	1.974	1.85%	1.114	2.07		7.364	9.194	7.784	7.451	14.024		100	32.28%	29.164	22,284	19.391	19.344	12.304	43.244	42.68	26.174	8.894	116.9	7.224	2.26%	2.14%	2.56t	360.6	;	7.841	416.6	9.034	6.344	784	45.544	36.741	31.514	26.38%	26.364	22.354	21.85\$	19.76\$	40.554	40.004	14.09\$	8.661	. 264	159.	334	613	5.614	1.064	_
	136,2 18,24%	30.62	30.104	10.4	-				201.8 1.					1198.7 7.			74.6 153.77		101 6 32						43.		22.2 26.		234.2 6.					33.6					2	74.6 149.39				-260.5 26.			35.8 21.		40		48.0 14.	1		201.3 6.	. 6	234.2 5		144.4 1	
																				•		17								•																													
-240.7	143.		•			9.50			143.	-44.7		835.1	793.9	1264.6	237.6	72.2	70.2	6.69		8.88	1. 95	-242.4	-240	143.3				38.8	92.0	-44.7			143.2	9.91-	-13	835	793.9	1264.6	237	0.0	96	97.5	88.8	-242.4	-240	54.1	3 1	143.3				3			159.7	92.0	92.0	-81.4	
-0.09461	-0.03352			0.02599	6,016/5	22098	4		0.08120	0.16203	-0.14203	0.01221	0.00875	0.04835	-0.02384	0.01401	0.15889	0.15830	0.04137	0.04488	2000	08580	-0.09580	-0.02218			0.02770	0.01615	0.21109	-0.15553			0.08558	0.07201	0.06708	0.01556	0.00895	0.07159	-0.02029	0.15415	-0.05317	0.05529	0.05039	-0,12201	-0,12201	0,00959	-0.02012	-0.03162			0.03041	0.010		0.09567	0.02472	-0.16024	0.20705	-0.08608	
-306.0	176.0	132.2	132.2	51.8	67.8	419.7	F. 70F-	0.000-	2319	202.	- 202.	1731.4	1132.6	1724.0	239.9	141.8	132.2	132.2	-189.3	171.8		-307.3	-306.0	176.0	132.2	132.2	51.8	67.8	419.7	- 202-	-307.3	-306.0	231.9	6.99	6.99	1731.4	1132.6	1724.0	239.9	132.2	132.2	171.8	171.9	-307.3	-306.0	86.0	76.7	176.0	132.2	132.2	8.13	67.08-	-306.0	231.9	210.8	-202.5	419.7	-170.6	
-285.5	188.6	70.2	6.69	30.0	9.6		. 242	2,740.7	166.7	7.997	-73.6	1831.9	1214.2	1810.6	239.9	141.2	124.3	124.2	-181.1	164.8	0.181	- 287	2.85.5	188.6	70.2	6.69	30.0	49.6	164.9	73.5	4.242.4	-240.7	166.7	-32.0	-32.0	1631.9	1214.2	1810.6	239.9	124.3	124.2	164.8	161.0	-287.2	- 285 - 5	1.08	82.0	188.6	70.2	6.69	30.0	- 242.6	-240.7	166.7	194.4	-73.6	164.9	-100.6	
C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	Base Case		C:Open 27061 11BONNIE 138 27141 118HREMS 138 1	11BONNIE 138 27152 11W LEBA 138	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	SSS 14MILSOS 161 Z/SB1 14MILSO/ 34S		oct meruori carre sac	C:Open 27012 118MilH 345 27142 118MilH 138 1	C:Open 27561 14WILSO7 345 27563 14COLE 7 345 1	C:Open 18425 8CUMBERL 500 18430 BDAVIDSO 500 1	C:Open 18018 8PHIPP B 500 18468 BVOLUNTE 500 1	C: Open 18457 8MBNP 1 500 18468 8VOLUNTE 500 1	C:Open 23248 05WAGENH 138 23711 05LTV 138 1	138	27028 11GR RV 161 27095 11GR RVR 138	11dR RV 161 27095 11GR RVR 138	11SMITH 345 27142 11SMITH 138	11GR RVR 138	11GK KVR 138 27126	C:Open 27061 IlBONNIK 138 27141 ILSHKEM3 138 1	IIHAKUBU 138 2/100 IIHAKUN	14HENDRS 161 27617 14HENDR4 138		Base Case	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	11W LEBA	14HILSOS 161 27561 14HILSO7 345	C.Open 27553 14WILSOS 161 27561 14WILSO7 345 Z	G:Open 27561 14#1L507 345 27563 14COLB 7 345 L		11SMITH	11FALLS	C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 2	A TOWN TOWN TOWN TOWN TRAIN STAUTHSO SOO 1	SPHIPP B 500 18468 SVOLUNTE	SWBNP 1 500 18468 BVOLUNTE 500	23248 OSWAGENH 138 23711 OSLTV 138	27028 11GR RV 161 27095 11GR RVR 138	27028 11dR RV 161 27095 11GR RVR 138	C:Open 27012 11SMITH 345 27142 11SMITH 158 1	11GR RVR 138 27126 11OHIO C 138	27099 11HARDBG 138 27100 11HARDN 138	11HARDBG 138 27100	11BONNIE 138	OSRICHCT69.0	05RICHCT69.0 24689		Base Case	C:Open 27061 11BONNIR 138 27141 115HREWS 138 1	C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1	Dage Case	Eage Case C:Open 27012 119MITH 345 27142 115MITH 138 1	05NPROCT 765 23190 05NPROCT 138	14WILSO7 345 27563 14COLE 7 345	C:Open 27553 14NILSOS 161 27561 14MILSO7 345 1	27142 11SMITH 138.	
0.32916 27006 11HARDN 345 27012 11SMITH 345 1	-0.42491 26851 10CULLEY 138 26879 10GRNDVH 138 1	- 27028 11GR RV 161 27095 11GR RVR 138 2		27205 11E VIEW69,0 29571	27061 11BONNIE 138	27553 14WILSOS 161 27561 14WILSO7	0,79255 27553 14WILSOS 161 27561 14WILSO7 345	27012 115MITH 345 27142 115MITH 138	27006 11HARDN 345 27012 11SMITH 345	27126 110HIO C 138	-0.15537 27094 11GR STL 138 27095 11GR RVR 138 1	0,60927 18422 8JVILLE SOU 18430 8DAVIDSO 500 1	BVOLUNTE 500	18464 SBULL RU	11BLUE L 161	0.56875 27156 11MC-DD 138 27295 11MC-DD 69.0 1	27028 11GR RV 161	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1	27079 11CLVRPR 138	27095 11GR RVR 138	27095 11GR RVR 138	27109 11LEITCH 138 27240	-0.32916 27012 11SMITH 345 27142 11SMITH 138 1	Z/OUG LINAKUN 345 Z/OIZ ILSMIIN	11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR	11B VIEW69.0 29571	27061 11BONNIE 138 29227	27553 14WILSOS 161 27561	27553 14WILBOS 161 27561	11GR STL 138 27095	27012 115MIN 345 27012 115MITH 345 1	110HIO C 138 27141	27180 11CANAL 69.0 27260	27180		0.60927 18422 83VILLE 500 18430 8DAVIDSO 500 1	BBULL RU SOO 18468 BVOLUNTE	11BLUE L 161 29248	27028 11GR RV 161 27095	11GR RV 161 27095 11GR RVR	27079 11CLVRPR 138	27095 LIGR RVR 138 Z7126 LICHIO C	11SMITH	27006 11HARDN 345 27012 118MITH	11LEITCH	24686 05RICHCT69.0 24689	RICHCT69.0 24690	-0.42491 26851	27028 IIGK KV 161 27095	-0.25368 27205 11E VIEW69.0	0.32160 27061 11BONNIE 138 29227 20BONNIE	27012 11SMITH 345 27142 11SMITH	- 27006 IIHARDN: 345 27012 ILSMITH 345 I -0 08687 27126 110HID C 138 27141 ILSHREWS 138 1	0.07084 22570 058PORN 345 22987 05SPORNA	-0.15537 27094 11GR STL 138 27095	0 79255 27553 14HILSOS 161 27561	0.79255 27553 14MILSOS 161 27561 14MILSO7 345 1	ZIGET TERONNER YSE ZIGET
-0.10135	-0.05961	0.13664 -		0.04447	0.03181	0.39612				0.09036	-0.17745	0,03587	0.02995	0.06348	-0.02384 -	0.02730	0.28157	0.28133	-0.09845	0.08328	0.08137	0.03341	-0.10624	-0.10624	0 15880		0.04714	0.03229	0.37839	0.37839	-0.19136	08560.0-	0.09486	0.13908	0.13908		0.04707	0.09204	-0.02029	0.27315	0.27292	-0.12587	0.09349	0.09134	-0.13489	0.03709	-0.02941	-0.02941		0.15415	0.05225	0.03700	0.12201	-0.12201	0.02566	-0.19705	0.37115	0.37115	-0.09575
202.3 *	212.0 R	453.8	457.6	490.3 +	570.9 *	643.3 *	643.3 +	685.8	690.5	722.3	726.3 *	-2803.3 *	-2724.3 *		0.8	22.6	27.8 *	28.3 *	83.3	84.5 ·	133.6	175.6	168.8	193.0	276.7 K	2 . E	462.5	562.4 +	673.5 +	673.5	673.5	677.3	688.1 *	710.8 *	110.9 *		-2136.2	-941.0	0.9 R	28.7 *	29.2	65.2	75.2 *	119.0	152.0	158.2 *	163.2 R	180.5 R	200.1 R	602.3	417.3	490.8	531.8	535.5	638.8 *		* 9.989	686.6	731.0
750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	750.0				750.0	750.0	750.0	150.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	250.0	0.027	750.0	750.0			750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	750.0	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027
GROUP 2B	GROUP 2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 3B	BE SUCH	GROUP 3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	droup_3B	GROUP 3B	arous an	BE JONE	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GKOOP 3B	GROUP 3B	GROUP_3B		GROUP 4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP, 48	GROUP 4B	GROUP 4B	GROUP 4B
UNITZ G61	UNIT2 G61	UNIT2 G61	UNITZ G61	UNIT2 G61	UNIT2_G61	UNIT2_061	UNITZ G61	UNIT2_G61	UNITZ_G61	TT2_061	UNITZ_G61	UNIT2 661	INIT2 G61	UNIT2 G61	UNIT2 GET	UNITZ G61	UNITZ G61	UNIT2 G61	UNITZ_G61	UNITZ GG1	UNIT2_G61	UNIT2_061	UNITZ_G61	UNIT2_G61	UNITZ_G61	UNITZ GET	INCTT GET	UNIT2 GG1	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNITZ G61	UNIT2 G61	UNIT2_G61		UNIT2_061	UNIT2_G61	UNIT2 G61	UNITZ G61	UNIT2 G61	UNIT2_G61	UNIT2_061	UNIT2_061	UNITZ_G61	UNITZ G61	UNIT2 G61	UNITZ G61	UNIT2_061	UNITZ_G61	UNIT2 G61	UNITZ G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNITZ G61	UNITZ G61	UNIT2_961	UNIT2 G61

Control of the Contro

Marie Land

	750.0	-1509.7	0.06660	0.60927 18422 8JVILLE 500 18430 BDAVIDSO 500 1 C:Open	18430 8DAVIDSO 500	1831.9	1731.4	0.02676	835.1	794.7
GROUP_5B	750.0	-983.3	0.08807	0.75412 18464 8BULL RU 500	500 18468 8VOLUNTE 500 1	199.1	197.6	-0.06140	166.4	165.2 29.24%
GROUP_5B	750.0	19.1 K	0,28503	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open	27095	124.3	132.2	0.16085	70.2	_
GROUP_5B	750.0	27.9 •	0.28479	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028	161 27095 11GR RVR	124.2	132.2	0.16025	6.69	***
GROUP_SB	750.0	47.4 R	0.08494	0.10782 27023 11DBLVIN 161 29215 20BTVVL 161 1 C:Open 27110	138 29387 20JKSMIT	-168.2	-164.2	0.07417	-141.4	19.75 45.754
GROUP_5B	750.0	64.9	-0.12640	0.59587 27079 11CLVRPR 138 27094 11GR 9TL 138 1	345 27142 11SMITH 138 1	7.181-	-280.0	0.01503	-164.4	
GROUP_SB	750.0	68.4 4.0 4.0 4.0 4.0 4.0 4.0 4.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5	0.02576	0.82125 27105 ILKENION 138 29566 405FURLS 136 1 C:Open 27105 0.75817 27095 11GR RVR 138 27126 11OHIO C 138 1 C:Open 27095	138 27126	164.8	171.8	0.05952	5.76	
GROUP SB	750.0	96.4 R	0.03013	0.09360 29295 20DAVIS 69.0 29319 20FAYETT69.0 1 C:Open 27113	138 29202 20AVON	-74.7	-71.8	0.01873	-49.5	
GROUP_SB	750.0	105.9 R	0.06847	-0.32954 27023 11DELVIN 161 27045 11HI TAP 161 1 C:Open 29386	161 29500 20POWELL 161	-206.8	-199.5	0.03488	-117.1	-113.5 22.08%
GROUP_5B	750.0	110.6 *	0,09833	0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095	138 27126 110HIO C	161.0	171.9	0.05424	198.6	-260.2 32.27\$
GROUP_SB	750.0	126.1 •	-0.15904	-0.32916 27012 115MITH 345 27142 115MITH 138 1 C:Open 27099	138 27100 11HARDN	-287.2	-307.3	-0.14120	-242.4	
GROUP_5B	750.0	128.9 *	-0.15904	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1 C:Open 2/099		0.252	222.9	-0.03299	143.9	
GROUP_5B	750.0	138.0 R	-0.06601	0.32399 27034 11LR TAP 161 27045 11MI TAP 161 1 C:Open 29386	100 23241	454.0	96.0	0.01004	54.3	\$5.6 27.90
GROUP_5B	750.0	147.2 *	0,03986	-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0 1 C:Open 2/061	130 1000	167.6	172.0	0.01838	98.7	
GROUP_58	750.0	162.2		-0.47947 27090 11FLEMIN 138 27093 11GODDRD 138 1	11103	-205.3	-216.9	-0.06043	-110.3	-121.9
	750.0	192.4		- 11172 SROBBINS 161 18040 SSANIEKI 161 1 C:Open Allot	20111	188.6	176.0	-0.02616	143.3	137.4
	750.0	226.9 R	-0.05568	-0.42491 26851 10CCOLLEX 138 26879 10CKNDVM 138 1 C.Open 27300	29566	182.7	190.8	0.01838	113.8	120.0
	750.0	986.0	0.02392	10.4/34/ Z/103 IINDANION 130 Z/13/ IINDANI 130 Z 2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2		70.2	132.2			
GROUP_SB	750.0		0.Teges	T D. SOLUCION TO TEMEST OF THE SOLUCION OF THE	138 27141 11SHREWS 138 1	30.0	51.8	0.03253	4.6	22.0
GROUP SB	200.0	7 8 8 5	16025	27028 11GR RV 161 27095 11GR RVR 138 1		63.69	132.2			
GROUP_SB	750.0	1000	0.1001.0	1 0.692 NAME TO COMPANY OF THE TOTAL OF THE	138 23173 05MILLBR 138 1	-13.9	-58.5	-0.02575	9.6-	-15.8
	750.0	459.5	-0.14120	- 27012 118MITH 345 27142 115MITH 138 1		-242.4	-307.3			
GROUP SH	750.0	462.7	-0.14120	27006 11HARDN 345 27012 11SMITH 345 1		-240.7	-306.0			!
GROUP SH	750.0	471.3	0.03853	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0 1	: 138 27152 11W LEBA 138 1	49.6	67.8	0.01774	38.8	
	750.0	475.1	0.10437	-0.77655 24067 05GRAYS869.0 29198 20ARGTM 69.0 1	138 23173 OSMILLBR 138 1	7.9	57.4	0.02575	-1.2	11.0 50.14
GROUP 5B	750.0	525.9 *	-0.06043	. 11084 SNANTAHA 161 11172 SROBBINS 161 1	500 11102	-184.2	-216.0	-0.06043	-89.2	-121.0
GROUP 58	750.0	545.3 *	-0.07056	0.48510 24084 DSPLYM.G69.0 24091 DSN HAVH69.0 1	138 23173 05MILLBR 138 1	-20.0	-58,5	-0.02145	-14.4	-26.0
GROUP 5B	750.0	557.5	0.11707	-0,09687 27126 110HIO C 138 27141 11SHREWS 138 1 C:Open 27012	345 27142 11SMITH	166.7	231.9	0,10339	143.2	200.8
GROUP 5B	750.0	€ 9.709	0,05418	-0.51651 27015 11W LEXN 345 27153 11W LEXN 138 1 C:Open 27004	345 27015 11W LEXN	437.5	470.5	0.07190	183.2	0.077
GROUP 5B	750.0	612.1	-0.07056	0.48510 24077 05FRANKN69.0 24084 05PLYM.G69.0 1 C:Open 23051	138 23173 05MILLER	-15.3	-58.5	-0.02145		160 4
GROUP SB	750.0	633.7 *	-0.20338	-0.15537 27094 11GR STL 138 27095 11GR RVR 138 1 C:Open 27561	345 27563 14COLE 7	9.67-	-202-	16901.0-		6 2 7 1
GROUP_5B	750.0		-0.10454	0,07924 27061 11BONNIE 138 27141 115HREWS 138 1	345 27142 11SMITH 138	-100.6	-170.6	85.50.0-		234.2
GROUP 5B	750.0	100.9	0.36360	0.79255 27553 14WILSO5 161 27561 14WILSO7 345 1 C:Open 27553	161 27561 14WILSO7	164.9	, T			2.4.2
GROUP_58	750.0	100.9	0,36360	0.79255 27553 14MILSOS 161 27561 14MILSO7 345 2 C:Open 27553 14MILSOS	161 27561 14WILSO7 345	164.9	4.19.7			
					Act dyd doct search tat	124.3	132.2	0.14106	70.2	74.6 135.83%
GROUP_6B	750.0	31.3	0.24996	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2	161 27095 110K KVK	124.2	132.2	0.14053	6.69	
GROUP_ 6B	750.0		0.24975	0.77429 27028 110R RV 161 27095 116R RVR 138 1 C:Open 27028	SEC DIMOUT CALCA DAG	1.181.	-189.3	-0.05094	-36.7	-40.6
GROUP_6B	750.0		-0.10709	0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1 C:Open 27012	345 Z/14Z IISMIII ISB	1.101	123.8	0.04738	97.5	101.6
GROUP_6B	750.0		0.08012	0.75817 27095 11GR RVR 138 27126 11OHIO C 138 1 C:Open 27095	138 2/126 11OHIO C 138	0.131	171.9	0.04318	88.8	94.8
GROUP_6B	750.0		0.07827	0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095	138 2/126 110810 C 138	1.08	0.98	0.00806	54.1	92.6
GROUP_6B	750.0		0.03123	-0.31945 27109 11LBITCH 138 27240 11LBITCH69.0 1 C:Open 27061	2/141 LISHKENS 130	-287.2	-307.3	-0.09424	-242.4	-260.9
GROUP_6B	750.0		-0.10204	-0.32916 27012 11SMITH 345 27142 11SMITH 138 1 C:Open 27099	Z/100 LIMARUN 138	-285.5	-306.0	-0.09424	-240.7	-259.6
GROUP_6B	750.0	200,9	-0.10204	-0.32916 27006 11HARDN 345	27517 14HENDR4	188.6	176.0	-0.02638	143.3	136.6
GROUP_6B	750.0		-0.04943	-0.42491_26851_10CULLEX_138_268/9_10GKNDVW_138_1		70.2	132.2			
GROUP_6B	750.0		0.14106	T OCT WAY WOLL SECTO TOT AN ADIT STOLE		6.69	132.2			
GROUP_6B	750.0	443.2	0.14033	-0 25168 27205 11E VIEW69.0 29571 208TEPHN69.0 1 C:Open 27061	11BONNIE 138 27141 11SHRENS 138 1	30.0	51.8	0.02532	4.6	22.0
GROUP_6B	7 100.0		0.03240	0.32160 27061 11BONNIE 138 29227 20BONNIE69.0 1 C:Open 27061	2 138 27152 11W LEBA 138 1	49.6	67.8	0.01738	38.8	n.
GROUP 6B	750.0		-0.09424	. 27012 119MITH 345 27142 118MITH 138 1 Base Case		-242.4	-307.3			
GROUP 6B	750.0		-0.09424	- 27006 11HARDN 345 27012 11SMITH 345 1	:	-240.7	222.0	-0.19876	-42.4	-182.8
GROUP 6B	750.0	706.2 *	-0.23966	0.33926 27025 11EARL N 161 27042 11RQ TAP 161 1 C:Open 27020	TIPE TANK THE T	166.7	231.9	0.08057	143.2	201.8
GROUP_6B	750.0		0.08970	-0.09687 27126 110HIO C 138 27141 115HREWS 138 1	SAF COSTINAL TRACE FAR	164.9	419.7	0.19362	92.0	234.2
GROUP_6B	750.0		0.34708	0.79255 27553 14MILSOS 161 27561 14MILSO7 345 1 C:Upen 27553	161 27561 14WILSO7	164.9	419.7	0,19362	92.0	234.2
GROUP_6B	750.0	734.2 *	0.34708	0.79255 27553 14WILSOS 161 27561 14WILSO/ 345 2						
			,		L 500 18430 8DAVIDSO 500 1	1831.9	1731.4	0.00657	835.1	
GROUP_7B	750.0	-2021.7	0.04974	0.5092/ 18422 00V15416 500 14750 0567223 015 0.77495 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028	161 27095 11GR RVR 138	124.3	132.2	0.15097	70.5	74.6 145.805
GROUP_7B	750.0		0.54730	o 77428 27028 11GR RV 161 27095 11GR RVR 138 1	161 27095 11GR RVR 138 2	124.2	132.2	0.15041		
arc aroun	750.0		-0.12103	0.59587 27079 11CLVRPR 138 27094 11GR 6TL 138 1 C:Open	345 27142 119MITH 138	-181.1	-189.3			101.6
GROOF A	750.0		0.09050	0.75817 27095 11GR RVR 138 27126 110HIO C 138 1 C:Open 27095	138 27126	164.8	171.8	200000	8.88	94.8
GROUP_1B	750 0	-	0.08842	0,74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095	138 27126 110HIO C	161.0	1/1.9	8555	-242.4	-260.7
ar anoan	750.0		-0.12422	-0.32916 27012 11SMITH 345 27142 11SMITH 138 1 C:Open 27099	138 27100 11HARDN	-287.2	9,100	0.0000	54.1	55.6
GROUP 7B	750.0		0.03562	-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0 1 C:Open 27061	138 27141 11SHREWS	40.1	0.405.	-0.11338	-240.7	-259.4
GROUP 7B	750.0		-0.12422	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	G 138 27100 11HARDN 138 1	188.6	176.0	-0.02778	143.3	137.0
GROUP 7B	750.0		-0.05573	- 0 42401 26851 10CULLEY 138 26879 10GRNDVW 138 1 C:Open 27560 14HKNJKS	LUCHURAL ITALE TOT					
						70.2	132.2			

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OW asay; MON; PHC,mon; SUBSYST; PHC,sub; CONT; PHC,con; EXCL; PHC,EXC

																																																	-							
38.214	30.45\$	3.501	13.5	6.45%	5.28%	6.364	4.18	4.181	17.034	74.86\$	74.724	31.86%	14.164	11.464	37.27	11.09	2.984	2.864	1.55%	1.438	9.874	7.511	6.484	148.624	41.348	34.478	31.294	22.824	22.79%	18.49%	40.341	39.79	29.511	5.52	5.424	4.524	6.09	6.09		145.704	145.491	43.35%	35.384	23.98%	23.951	24.16%	16.55	38.69%	30.35%	13,634	1.764	9 284				410
	22.0	-121.9	e.		201.5	-149.6	234.2	234.2	140.5	74.6	74.4	-43.3	101.6	94.8	234.2	108.8	-260.3	-258.8	-121.4	-113.9	776.6	1196.7	237.6	9. 1	-40.2	101.6	94.8	-260.6	-259.3	136.9			22.1	:		201.6	234.2	234.2		74.6	74.4	-40,2	101.6	260 7	-259.3	55.6	137.0		22.0	48.3	-121.9		201.5	-149.7	234.2	
	4.6	-110.3	38.8		143.2	-14.7	92.0	92.0	143.3	70.2	6.69	-36.7	97.5	8.8	92.0	0,26	-242.4	-240.7	-117.7	-44.7	793.9	1264.6	237.6	70.2	-36.7	37.5	88.8	-242.4	- 240.7	143.3			4. 6	9.85		143.2	92.0	92.0		935.1	6.69	-36.7	97.5	88.8	-240.7	54.1	143.3		4.6	38.8	-110.3		143.2	-44.7	92.0	
	0.02898	.0,02560	0.01945		0.09227	0.15392	0.20257	0.20257	0.00529	0.08041	0.08011	-0,07412	0.02470	0.02251	0.28745	0.28745	0.02890	-0.02890	-0.00584	0.09342	0.00535	0.04491	0.02073	0.15378	0.15320	0.05222	0.04758	0.10916	0.00919	0.03073			0.02887	977.10.0		0.09033	0.15608	0.20853		-0,00119	0.15030	0.05247	0.05345	0.04871	0.11391	0.00003	.0.02782		2000	0.01910	0.02056	-	11000	-0.15359	0,20205	
132.2			67.8	306.0	231.9		419.7	419.7	176.0					171.9		419.7		·	-	-202.5	1132.6	1724.0	239.9	132.2	132.2		171.9	. 307.3	96.0	176.0	132.2	132.2	51.8	67.B	-306.0	231.9	-202.5	419.7		. 1731.4	132.2	-189.3	171.8	171.9	-307.3	0.58	176.0	132.2	132.2	5.T.6	-216.9	-307,3	-306.0	-202.5	419.7	
6.69	30.0	-205.3	9.6	-240.7	166.7	-73.6	164.9	164.9	4	124.3	124.2	-101.1	164.8	161.0	164.9	164.9	1.4.1	-261.5		28.8	1214.2	1810.6	239.9	124.3	124.2	164.8	161.0	-287.2	80.1	168.5	70.2	6.69	30.0	262.6	-240.7	166.7	-73.6	164.9		1831.9	124:2	-181.1	164.8	261.0	-287.2	80.1	188.6	70.2	6.69	0.08	-205.3	-342.4	-240.7	.73.6	164.9	K - FD+
Base Case 69.9	138 27141 11SHREWS 138	C:Open 11101 8BAD CRK 500 11162 BJOCASSE 500 1	C:Open 27061 11BONNIE 138 27152 11W LEBA 138 1		012 11SMITH 345 27142 11SMITH 138	14WILSO7 345	14WILSOS 161 27561 14WILSO7 345	C: Open 27553 14WILSOS 161 27561 14WILSO7 345 1	ore remained the section of the sect	AVERAGE TO TAIL SECTION OF THE PROPERTY AND THE PROPERTY OF TH	27028 11GB RV 161 27045 11GR RVR 138	27012 11SMITH 345 27142 11SMITH 138	27095 11GR RVR	27095 11GR RVR 138	27553 14WILSO5 161 27561 14WILSO7 345	27553 14HILSOS 161 27561 14HILSO7	27561 14MILSO7 345 27563	11CLVRFR 138 2/094 11GR 51L	26861 10ABBRWN 138 27617 14HENDR4	27028 11GR RV 161 27553	1 002 STATISTICS SARE OUT DE COLUMN STATISTICS	18457 8WBNP 1 500 18468 BVOLUNTE	OSWAGENR 138 23711 05LTV	27028 11GR RV 161 27095 11GR RVR	11GR RV 161	27012 11SMITH 345 2742 11SMITH 27095 11GR RVR 138 27126 11GHIO C	27095 11GR RVR 138 27126 110HIO C	27099 11HARDBG 138 27100 11HARDN	27061 11BONNIE 138 27141 115HREWS	27099	71977	Base Case	27061 11BONNIE 138	061 11BONNIE 138 27152 11W LEBA 138		n 27012 11SMITH 345 27142 11SMITH	27561 14WILSO7 345 27563 14COLE 7	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 2	CONTRACT TACKY TAT COSTINAT	18425 BCUMBERL 500 18430 BDAVIDSO	C:Open 27028 11GR RV 161 27095 11GK KVK 138 I	11SMITH 345 27142 11SMITH	11GR RVR 138 27126 11OHIO C	11GR RVR 138 27126 110HIO C	11HARDBG 138		14HENDRS 161 27617 14HENDR4			11BONNIE 138	C:Open 27051 IlBONNIS 136 2/137 11 DEST 230 1 C:Open 11101 88AD CRK 500 11102 8JOCA65E 500 1			C:Open 27012 118MITH 345 27142 11SMITH 138 1	Idwitted/ 149 2/200 idcome / 240	
- 27028 11GR RV 161 27095 11GR RVR 138 1	11E VIEW69.0 29571	11172 SROBBINS 161 18040	11BONNIE 138 29227 20BONNIE	- 27012 11SMITH 345 27142 11SMITH 138 1	138 27141 11SHREWS	27094 11GR STL 138 27095 11GR RVR	27553 14WILSOS 161 27561 14WILSO7	27553 14WILSOS 161 27561		O 42491 ZEBSI IOCODEKY 138 ZEB/9 IOCKNOVW 138 L	27028 11GK KV 161 27095 11GK KVK 138	27079 11CEVRPR 138 27094 11GR STL	27095 11GR RVR 138 27126 110HIO C	27095 11GR RVR 138 27126	27553 14HILSOS 161 27561 14WILSO7	27553 14WILSO5 161 27561 14WILSO7	26857 10NEWIVL 161 27552 14COLE 5	0.56786 27012 115MITH 345 27142 115MITH 138 1	10NEWIVE 138 26879 10GRNDVW	27094 11GR STL 138 27095 11GR RVR		-0.3553/ IB468 BVOLONIE SUG IS469 SVOLONIE FOI I	BLUE L 161 29248	161 27095	27028 11GR RV 161 27095 11GR RVR	0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1	11GR RVR 138 27126 110HIO C	11SMITH 345 27142 11SMITH	11LEITCH 138 27240 11LEITCH6	27006 11HARDN 345 27012 11SMITH	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1	11GR RV 161 27095 11GR RVR	11R VIEW69.0 29571 209TEPHN6	27061 11BONNIE 138 29227 20BONNIE	27012 118MITH 345 27142 115MITH 138 1	OHIO C 138 27141 115HREWS	GR STL 138 27095 11GR RVR	WILSOS 161 27561	0.79255 27553 14WILGO5 161 27561 14WILGO7 345 Z	500 18430	161 27095	0.77429 27028 11GR RV 161 27095 11GR KVR 138 1	138 27126	0.74073 27095 11GR RVR 138 27126	-0.32916 27012 11SMITH 345 27142 11SMITH	27006 11HARDN 345 27012	.0.31945 27109 11LEITCH 138 27240 11LEITCH69.0 1	-0.42491 26851 10COLOGY 138 28879	27028 11GR RV 161 27095	-0.25368 27205 11B VIEW69.0 29571		. 111/2 SKOBBINS 181 . 27012 115MITH 345	27006 11HARDN 345	-0.09687 27126 11OHIO C 138 27141 11SHREWS	-0.15537 27094 11GR STL 138 27095 11GR RVR	
0.15041 -	0.05010	-0.02560 -	0.03690	-0.11338	0.10325	-0.18903	0.36312	0.36312		0.02317	14249	-0.09134	0.04177	0.04081	0.51526	0.51526	0.19327	-0.07099	-0.02296	-0.31226	•	0.02521	-0.02073	0.27250	0.27227	-0.11528	0.08626	-0.12030	0.03511	-0.12030	-0.06020	0.15320	0.04945	0.03485	-0.10916	0.10090	-0.19222	0.37379	0.37379	0.03073	0.26735	0.26712	0 09038	0.08830	-0.12504	-0.12504	0.03557	0.05563		0.05003	0.03659	-0.02056		0.10315	-0.18852	
414.1	435.2 *	454.2 *	492.2 *	572.3	5.07.5	681.8	701.8 *	701.8 *		- 14 th			168.4 *	266.4 *	494.6 +		610.9	620.8 *	627 0	741.0 *		-3236.4				71.1 +	126.0 *	166.7	167.1 •		209.9 R	406.6	440.8	\$21.1	594.4	646.9 *	670.5	681.8 *	681.8 *	-3272.5 +	29.3	29.8	68.1	123.1	160.4	164.0 •	164.9	227.1 R	414.6	435.8 +	496.3 *	565.7	573.5	632.8	683.7	
750.0 414.1	750.0	750.0	750.0	750.0	759.0	750.0	750.0	750.0		750.0	0.067	750.0				750.0	750.0	750.0	750.0	750.0		750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	250.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	
GROUP 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP 78	GROUP 78	GROUP 7B	GROUP 7B	GROUP_7B		GROUP_8B	GROUP_BB	GROUP AB	GROUP SB	GROUP BB	GROUP 8B	GROUP_8B	GROUP_8B	GROUP BB	GROUP BB	GROUP_8B	. !	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP_NB	GROUP NB	GROUP NB	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SH	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	
UNIT2 G61	UNIT2 961	UNITZ G61	UNIT2_G61	UNIT2_061	UNITZ G61	UNIT2 G61	UNIT2 G61	UNIT2_G61	. :	UNIT2_G61	UNITZ GEL	UNITY GET	UNIT2 G61	UNIT2 G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNITZ_G61	UNITZ G61		UNITZ_G61	UNIT2 G61	UNIT2 G61	UNIT2_G61	UNITZ G61	UNITZ G61	UNIT2 G61	UNITZ_G61	UNIT2_G61	UNIT2_G61	UNITZ GEI	UNITZ G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNIT2_G61	UNIT2 G61	UNITZ_G61	UNIT2 G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNITZ G61	UNITZ G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNIT2_G61	UNIT2 G61	UNIT2_061	UNIT2_061	UNITZ_G61	UNITZ G61	UNITZ-G61	

Scenario 7

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OS: 1500 MWW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OS;asy; MON; PHC,mon; SUBSYST; PHC,sub; CONT; PHC,con; EXCL; PHC,EXC

FCIT

TO 1 TO 2 + CO TO 4 TO 5		(E OPEN)
IC MULTIPLE TRANSFER REPORT:	MUST Title: *** MUST 3.20 *** WED, JAN 10 2001. 20:13 ***	2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
벛	2001	CASE
H H K	JAN 10	AR BASE
SNS.	WED,	BAK BC
T.K.	3.20 ***	SUMMER P
a E	MUST	2004
	١	
	Title:	Titlei
S	MUST	•

Title: Gilpélos: 1500 MM SELIT BETHEEN GREEN RIV 161 & PARADISE 161
Honitor File: C.\aV-USERS\NOSODY\PHC.mon
Contingency File: C.\aV-USERS\NOSODY\PHC.con
Subsydres File: G.\aV-USERS\NOSODY\PHC.cub
Exclude File: none

53.20	32.59	18.44	147.881	31.384	28.37	27.924	32.554	41.17	40.00	39.444	10 734	13.89	13.351	21.901	19.81	5,30%	90.00	4.894	5.36	1.864	2.60%	400	51,55%	33.761	19.781	86.01%	199.65	131.634	316.161	30.434	105.174	26.56	103.98	49,867	96.421	25,61%	40.09%	79.76	36.40	36.694	15.51	10.01	13.054	2.33		51.01%	21.364	109.04	108.834
249.2	-128.2		65.7		87.1	146.4	22.9	16.6			316.8	. 64 A		-149.3	-129.0	-62.6	234.1	-115.1	66.7	-306.3	43.1		248.9	-128.2	161.2	67.6	-140,1	65.8	65.7				43.4	24.1	5.05	146.4	57.1	-89.7	9'91	-149.6	105.2	9 6	-194.7	114.3		249.1	1.61.2	65.8	65.7
279.7	-128.7	162.3	0.5	82.6	75.2	117.9	20.2	4.3			257.4	7 63	P. 76	9.99-	-43.1	-18.8	101.4	101.9	9.6	-216.8	33.5		279.4	-128.7	162.3	5.09	-114.9	43.5	£	183.2	20.6	75.2	20.2	20.2	-360.5	117.9	33.1	-11.4	4.3	9.99	6.15	9.65	22.0	27.3		7.672	-128.7	43.5	63.3
0.06719	0.02249	-0.02211	0.07992	0.02670	0.02433	0.04593	0.00385	0.01476			0.06373		16110.0-	-0.07705	-0.07660	-0.03743	0.10241	0.10241	0.04117	-0.06373	0.00672		-0.05613	0.02405	-0.02369	0.04011	-0.08733	0.07269	0.07241	0.02555	0.04643	0.02328	0.04550	0.00705	0.01227	0.08592	0.03238	-0.09716	0.01394	-0.09210	0.15066	-0.01601	0.09652	00001.0-		0.06378	0.02629	0.06277	E 36 30 G
343.6	-176.0	175.5	116.7	157.8	157.8	164.8	54.6	40.6	116.7	116.7	444.5	343.6	-190.8	-181.6	-179.0	-148.4	419.7	119.7	6.061-	-446.0	73.8		-334.7	195.0	175.5	93.8	175 7	116.7	116.7	157.8	74.7	157.8	74.7	54.6	-461.0	15 e	F 2 2	-141.0	40.6	-181.6	163.7	-190.8	140.9	-234.5	1/4.8	343.6	-176.0	175.5	
386.1	-176.9	176.6	77.1	17.0	136.4	132.4	39.0	19.5	43.5	43.3	361.7	279.7	-141.9	-81.4	7.67-	-121.0	181.9	181.9	-82.6 4.65	-321.1	37.8		-357.3	386.1	176.6	74.2	-150.8	17.1	0.77	139.6	245.0	136.4	34.8	39.0	-475.1	-43.2	132.4	-10.3	19.5	-81.4	-25.2	-141.9	-23.2	-24.7	23.9	386,1	-176.9	176.6	1.1.
_	1	-	-		٠.			-			-		-1	_		1	-	7					-	- -		66	1	-	8	C4			1 17	1	1							1	-	66			#1		-
ERD T 161	27617 14HENDR4 138	NGMIND 138	27095 11GR RVR 138			138	161				OWL GR 161		MITH 138	191 00 00	COLE 7 345	SRNDVW 138	WILSO7 345		11SHREWS 138	CORYDO 161	WORGNF 161		HOMHL 345	SABERD T 161	161 27617 14HENDR4 138	JC PATE 69.0	7FRANKS 345	161 27095 11GR RVR 138	11GR RVR 138	27126 110HIO C 138	STHMHIL 161	MOBERLY 69.0	MOBERLY 69.0	27042 11RQ TAP 161	SDAVSNRD 161		-	REAU 161	-		MARIES 138	11.5MITH 138			SGRAVOI 161	SPARADIS 161 18926 SABERD T 161	14HENDR4 138	10CULLEY 138 26875 10ANGMND 138	27095 11GR RVR 138
1 18926 5A	1 27617 148	8 26875 107	1 27095 110	1 27095 11GR RVR	IIGK KVK 138 Z/128 IIOMIO C 238	345 27142 11SMITH	1 27042 11	8 27141 118			1 18691 5B		5 27142 11:	11 22020 11	5 27563 14	8 26879 10	1 27561 14		8 27141 11	1 27021 11	1 27035 1		S 96162 7THOMHL	161 18926 SA	1 27617 14	138 268/5 10 161 20805 JC	345 96142 7F	1 27095 11	161 27095 11	138 27126 11	96354	161 31222 MG	31222	27042	31 18740 SE	4 31933 W	345 27142 13	161 31239 MOREAU	SI SELES SERVICE		138 31024 M	345 27142 13	161 96168 51		161 96814 50	61 18926 5	1 71912 19	38 26875 1	161 27095 11GR RVR
PARADIS 16	14HENDRS 161	CULLEY 13	11GR RV 161	11GR RV 161	ET MAN ADI			BONNIE 13			PARADIS 16		1SMITH 34	21 # 2000	WILSON 34	OCULLEY 13	4WILSOS 16	27553 14WILSOS 161 27561	27109 11LEITCH 138	ICORY T 16	PAKADIS 16	1		18012 SPARADIS 16		26851 10CULLEY 13							27095 IIGK KVK I		SDAVSN 2 161	LIVMIN 1 1:		ы	30532 ELDON LEI	11CORY T 161	LKSIDE 1 1	11SMITH 3				SPARADIS 1	27560 14HENDRS 161 27617	10CULLEY 1	11GR RV 1
C:Open 18012 SPARADIS 161 18926 SABERD T 161	C:Open 27560 14	C:Open 26851 10CULLEY 138 26875 10ANGMND 138	C:Open 27028 13	C:Open 27028 1	C:Open 27095 1	C:Open 2/095 11GK KVK	1. 92025 III	C:Open 27061 11BONNIE 138 27141 11SHREWS 138	Base Case	Base Case	C:Òpen 18612 SPARADIS 161 18691 SBOWL GR 161	Base Case	C:Open 27012 115MITH 345 27142 11SMITH 138	Base Case	C:Open 27020 1100K1 1 181 27020 110K KT 202 C:Open 27561 14WILSO7 345 27563 14COLE 7 345	C:Open 26851 10CULLRY 138 26879 10GRNDVW	C:Open 27553 14WILSOS 161 27561 14WILSO7	C:Open 27553 1.	C:Open 27109 1	C.Open 27020 LICORY T 161 27021 LICOREDO	Cropen 18012 SPARADIS LEI 18691 SBORD ON	7 070/7 1100	C:Open 96150 7	C:Open 18012 5	C:Open 27560 1			27028		27095	96162		C:Open 27095 1		18698	31609	27012	30677		C:Open 27051 J	30957	27012	30532	C:Open 96142	C:Open 96168 SBARNET	C.Open 18012	27560	26851	C:Open 27028
1 0:0	0.0	1 0:0	2 0:0	6:0					2 Bag	1 846	1 C:Ò	1 Bas	1 0:0	1 Bas	1 6:0	100	2 0:0	1 0:0	1 C:0	_		-		-								2	۰,	٠,		-	H	-						-					
SROWL GR 161	C.41330 Leads Jeneman Lat 155 1550 Jeneman Co.41330 Act 1550 Act 1	0.16225 26851 10CULLEY 138 26879 10GRNDVW 138	3R RVR 138	11GR RVR 138	27126 110HIO C 138	0.74075 27095 11GR RVR 138 27126 110HIO C 138	SHKEWS 130	0.21911 27216 11GR RVR69.U 27271 11KQ 1AF69.U	27095 11GR RVR 138	11GR RVR 136	18926 SABERD T 161	18691 SBOWL GR 161	11GR STL 138	27141 11SHREWS 138	27042 11RO TAP 161	26857 TONENTVE 161	27561 14WILSO7 345	27561 14WILSO7 345	27141 11SHREWS 138	27035 11MORGNF 161	161 18926 SABERD T 161	0.45069 27020 11CORY T 161 27021 11CORYDO 161	96354 STHMHIL 161	0.41330 18012 SPARADIS 161 18691 SBOWL GR 161 1	26879 10GRNDVW 138	26879 10GRNDVW 138 1	MOREAU 69.0 1	31409 OVERTON 161 1	27095 11GR RVR 138	27126 110HIO C 138	OVERTON 161	161 31222 MOBERLY 69.0	27126 110Hfo C 138	OBERLY 161 31222 MOBERLY 69.0	SGRASL T 161	(ARIES 161	27141 11SHREWS 138	2	ARIES 138	29571 20STEPHN69.0	IEARL N 161 27042 MING LAF 181	É	SAGE 138	SBARNET 161		190 00 180001	10GRNDVW 138	0.40077 26851 10CULLEY 138 26879 10GRNDVW 138	BEL WAY ADTE
18691	26879 100	26879 100	27095 110	161 27095 110	27126 110	27126 110	27141	27272 11	27095 11		18926	18691 58	1 27094 11	1 27141 11	1 27042 11				8 27141 11	1 27035 11	1 18926 SA	1 27021 11	1 96354 ST	1 18691 58	8 26879 10	8 26879 10	1 31240 MC	1 31409 OV	1 27095 11	8 27126 11	5 31409 00	1 31222 MC	8 27126 11	1 31222 MC	1 19070 50	96292	8 27141 11	1 30027 A	8 31024 M	0 29571 20	161 27042 11KQ 1.	27000	18 21.094 IION U	96168	96168		1 18691 5	18 26879 1	1 20077 121
DANTS 161	SENTAL 138	CULLEY 138	3R RV 163	ž	3R RVR 136	3R RVR 136	27126 110HIO C 138	JR KVK69.1	27128 11GR RV 161	3R RV 161	ARADIS 167	18012 SPARADIS 161	CLVRPR 138	27126 11OHIO C 138	EARL N 16:	NEWTOT, 13	WILSOS 16	MILSOS 16:	BONNIE 13			CORY T 16	BERLY 161	ARADIS 16	NEWTVL 13	>			GR RV 161	-				BERLY 161	LGK KVK69.0		υ	CH FLT 16	CRIDE 1 13	1B VIEW69.0	EARL N 16	5	ECLVRFY 130	P T T T			SPARADIS 161	OCULLEY 1	
A 41220 18012 SPADANTS 161	20077	26851 100	0.77504 27028 11GR RV 161 27095 11GR RVR	0.77439 27028 11GR	0.75819 27095 11GR RVR 138	27095 110	27726 110	0.21911 27216 11GR RVR69.U	111 602/2 (27028 11GR RV	0.37321 18012 SPARADIS 161	18012 SP	0.59632 27079 11CLVRPR 138	27126 11	0.33947 27025 11EARL N 161	-0.15549 27094 116A 511 150	0.79255 27553 14WILSO5 161	0.79255 27553 14WILSOS 161	0.42627 27061 11BONNIE 138	0.68235 27020 11CORY T 161	-0.37321 18692 5E BOWL	9 27020 11	0.38364 31221 MOBERLY	0 18012 SP	0.40677 26855 10NBWTVL 138	S 26851 10CULLEY	0.39884 31239 MOREAU	-0.06663 30233 CALIF	0.77504 27028 11GK KV	9 27095 11GR RVR	0.22078 31408 OV	0.71235 31221 MOBERLY	0,74075 27095 11		0.21911 27216 13	-0.65393 31024 MARIES	-0.09775 27126 11	0.29106 30026 APCH FLT 161	0.43111 30957 LKSIDE 1 138 31024 MARIES	-0.25375 27205 11	0.33947 27025 1	≌ .	0.59632 27079 ILCLVKFK 130	-0 14289 36532 ELDON	-0.49392 30233 CALIF		0.41330 18012 SPARADIS 161	25 25851 1	
0.41330	1004.0	0.1622	0.7750	0.7743	0.7581	0.7407	-0.09775	0.21911				٠.			0.3394	1007.0			0.4262	0.6823	-0.3732	0.4506						•																					
2000		-0.02231	0.14164	0.14152	0.04515	0.04411	0.05228	0.02225	17670.0	0.07963	0.08881	0.06719	-0.05037	0.04593	-0.09331	-0.09384 -0.09384	10.220.0-	0.18358	-0.04318	0.04576	-0,08861	0.02528	-0.04268	0,08976	0.04021	-0.02388	0.05445	-0.08648	0.12881	0.04320	0.08674	0.07884	0.04221	0.07838	0.02855	0.00890	0.04974	0.04405	-0.16211	0.02392	-0.11122	0.20764	-0.05233	0.16037	0.10332		0,08852	0.04035	
1 de 1 de 1 de 1	2.626.	23.0 K	279.3	280.2 *	403.1 *	486.6	620.7	702.9	0.96.0	5.516	932.1	950.4	973.7	1021.6	1074.0	1121.6	1205 7 *	1295.7 *	1341.0 *	1387.4 •	1405.5 *	1421.3 *	-631.3	-473.6 *	22.2 R	44.5 R	176.7 *	288.6	307.1 *	1.80£	490.8	503.3	\$ 5.805	\$09.1 *	547.7 *	552.5 K	652.4	739.1 •	806.4	881.0 *	901.1	910.0 *	935.4 *	1019.3	1460.6		-480.3	22.2 R	
Texes.	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	3500.0	1,000.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0051	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	Tane.
																		-																														_	_
4	ALL B	ACE B	Arr B	ALL B	ALL B	ALL B	ALL_B	ALL	ALL B	Wer.	A P	114	ALL B	Arr	ALL B	ALL	ALL B	A LE	ALL B	ALL B	ALL	ALL_B	017000	GROUP 18	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROOF_18	GROUP 1B	GROUP 18	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 18	GROUP 18	GROUP_1B	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_18	1	GROUP_2B	GROUP 2B	GROUP 2B
HOM													-									•																											
	G61P61	061961	Gelper	G61P61	061P61	G61P61	G61P61	361961	G61P61	061261	061P61	194190	Gerrer	194195	G61P61	G61P61	G61P61	Gelpel	G61P61	G61P61	G61P61	G61P61	,	194190	GG1PG1	061961	G61P61	G61P61	194190	G61P61	GGIPGI	261761	GG1P61	G61P61	361961	361P61	G61P61	194190	361961	G61P61	GG1P61	361761	G61P61	G61P61	1961961	Teaten	194190	G61P61	G61P61

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC) 161 KV TIE OPEN)
G61P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OS.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

1500 1517 1518
150.000 150.00
150.00 1
March 28 1500.0
Colon Colo
Character Char
EXPERIMENTAL STATE OF THE PROPERTY OF THE PROP

Caser: 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN) GS1P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161 LF Caser: GS1P61OS.aav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

できる。

	58.67	29.304	180.	111	33.384	338.941	37.931	249.224	28.77	39.76%	156.61%	12.71	149.491	181.04%	32.014	21.504	23.641	46.09%	13.451	8.30k	12. 321	2.114	48.85\$	24.211	115.414	19.21	74.18%	6.64	19.564	59.69	16.531	50.064	43.65\$	8.014	24.74% 7.52k	14.074	21.56%	18.394	11.991	20.00	0.624	0.421	52.84\$	30.354	17.044	138,801	32.751	29.71%	168.08	45,80%	29.50\$	3.481	9.814
Color Colo	-		47	4.7							-			-			5	9 4								-								•		-	~	-		7													-104.2 2
Company Comp	3 6		7													·						•		7		-				7	-								7			•									-	١,	
17.10 17.1	43.	-60	-88	. 66	52.	. 6	75	Š	.53	17:	. 61	-155	un 1	31	4.02	. S			257	91	4	99-	279	-128	43	162	30	-360	82	99-	117	o.	-	,	95	33		E 2.	. 43	4	101	-43	92.0	-128	162	4.4	8 6	7.5	- 42	56 6	117	-360	-76.2
Company Comp	0.08435	0.03100	-0.08378	-0,02346	0.00558	0.03235	0.02988	-0.03235	-0.00558	-0.08378	0.05724	-0.02206	-0.02716	-0.03926	0.01810	-0.00518			0.06863	0.01497	22700 0-	-0.07571	0.06095	0.01866	0.06557	0.06532	0.01080	0.01615	0.02109	-0.11569	0.03517	0.06554	-0.01614		0.12139	0.00335		-0.01178	-0.06890	0.01352	0.08941	-0.05816		0.06704	-9.02040	0.07584	0.02755	0.02511	-0.06112	0.01002	0.04751	0.00696	-0.03941
0.02374 0.02429 1000	116.7	4.46-	-217.0	142.0	78.9	157.8	8.721	-58.7	-81.8	-215.7	164.8	-213.1	0.65-	-83.7	40.6	-190.8	164.8	116.7	444.5	158.0	343.6	-181.6	. 9 191	-176.0	116.7	116.7	54.6	-461.0	157.8	-181.6	164.8	95.9	-181.6	343.6	257.2	73.8	116.7	-190.8	-174.9	20.0	419.7	-179.0		343.6	175.5	116.7	116.7	157.8	-129.9	164.6	54.6	-461.0	.154.0
Company Comp	77.0	-100.7	-193.5	158.8	72.1	139.6	1.86.4	0.7	-72.2	-175.8	132.4	-199.0	E.B.	26.1	19.5	-141.9	117.9	43.5	43.3	139.5	7.9.7	-73.1	1 285	-176.9	17.11	77.0	39.0	-475.1	139.6	-81.4	132.4	19.6	9 m	279.7	101.5	361.7	43.5	-141.9	2.75-	-6,3	161.9	181.9		386.1	176.6	77.1	139 6	136.4	-74.4	152.1	39.0	-475.1	9.616-
0.03791 0.77439 2028 1108 NV 161 27058 1108 KW 138 1 0 0.02564 - 0.44391 2621 1100LUAE 132 2679 1100LUAE 138 1 1 0 0.02564 - 0.44391 2621 1100LUAE 132 2679 1100LUAE 138 1 1 0 0.02569 - 0.13594 27109 110LUAE 132 27120 111ETCH69 0 1 0.02209 - 0.13594 27109 110LUAE 132 27120 111ETCH69 0 1 0.02209 - 0.13594 27109 110LUAE 132 2726 111ETCH69 0 1 0.02209 - 0.13594 27109 110LUAE 132 2726 111ETCH69 0 1 0.02209 - 0.13594 27109 110LUAE 132 2726 111ETCH69 0 1 0.02209 - 0.13594 27109 110LUAE 132 2726 111ETCH69 0 1 0.02209 - 0.13594 27109 110LUAE 132 2726 111ETCH69 0 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 0 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 0 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 0 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 0 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 1 0.02209 - 0.13594 27109 11ERRE 132 3724 111ETCH69 1 0.02209 - 0.13594 27109 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27109 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27109 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27109 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11ERRE 132 1 0.02209 - 0.13594 27059 11ERRE 132 3724 11	138	138	200	161	138	138	1 2	138		200	138					138			1 191 40	7 138 1		345			138	138			138	0 C 138 1	138	TAP 161 1	04 0 0904		161	161	,	138	FAP 161 1	ADU69.0 EQ	507 345 1	345	}	161	138		138	138	1700		161	191	
0.03209 0.77459 27028 1105 NV 162 27059 1105 NV N 128 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	095 11GR R	TATE TROOPS	102 BJOCAS		141 119HRE	126 110HIO	TIME DEMILE	173 05MILE	141 11SHRE	102 8JOCAS					141 115HRE	042 11KQ T 142 11SMIT			GO1 SECUT.	498 20PLUM		1715 SCHUTZ 1327 MT VRN		1926 SAMBER 1617 14HEND	7095 11GR F				7126 110HIC		7142 116MI	7042 11RQ 7	LIAMIT FOCT		7028 11GR P	8691 5BOWL		7142 11SMI	7042 11RQ	7276 113 P	7561 14WIL			8926 SABER	7617 148EN 6875 10ANG	7095 11GR	7095 11GR	7126 110HI	1192 ALBEM	7011 11PIN	7042 11RQ	7142 LISH	The state of
0.02591 0.77449 12028 1104 NV 16. 27595 1104 KWR 128 1 0 0.02544 0.02549 0.12764 27028 11178 KR 128 1 12 104064 138 1 1 0 0.02549 0.12764 27028 11178 KR 128 27745 1118 1104 NV 16. 27545 1118 1104 NV 16. 27545 1118 1104 NV 16. 27545 1118 NV 16. 27			2005	161	138	13	138	138	138	500	345	138	138	138		345			1 121 PIG	ORD 138 25		T2 138 31 N 345 31	;	191	161	191 /	5 161	1 5	138	138	345	161	0 0 0	N-583.0	Y T 161 2	DIS 161 1	101		IL N 161 2	DAM69.0 2	505 161 2	161	ç	191	191	161	191	5 5	101	345	161	345	187
0.02591 0.77449 12028 1104 NV 16. 27595 1104 KWR 128 1 0 0.02544 0.02549 0.12764 27028 11178 KR 128 1 12 104064 138 1 1 0 0.02549 0.12764 27028 11178 KR 128 27745 1118 1104 NV 16. 27545 1118 1104 NV 16. 27545 1118 1104 NV 16. 27545 1118 NV 16. 27	28 11GR H	INTERPRETATION	OI BBAD C	186 20JKSP	11 11BONS	195 11GR F	051 05FUE						Jes Libker	051 05FUL										OIZ SPAKA SKO 14HENI	028 11GR 1				095 11GR	095 11GR	020 11COR 012 11SMI	025 11EAR	100	793 TYLKI			NOOTT DED			025 11EAK 236 11KY	553 14WIL	553 14WIL		1012 SPARA	7560 14HEN	7028 11GR							
0.02264 -0.4299 27028 110R KV 161 27095 110R KW 1319 0.02264 -0.4299 27028 111RW KV 151 27043 111RPRW 139 0.02264 -0.4299 27028 110R KV 151 27043 111RPRW 139 0.02265 0.02209	C:Open 270	C:Open 275	Goben 111	C:Open 293	C:Open 270	C:Open 270	C:Open 230	C:Open 23	C: Open 270	C:Open 111	C:Open 270	C:Open 230	C:Open 230	C:Open 230	C:0pen 27	C:Open 27(Base Case	Base Case	Base Case	Cropen 29:	Base Case	C:Open 30		C:Open 18	C:Open 27	C:Open 27	C:Open 27	C:Open 18	C:Open 27	C:Open 27	C:Open 27	C:Open 27	Base Case	Ciopen 27 Base Case	C:Open 27	C:Open 18	Base Case	C:Open 27	C:Open 27	C:Open 27	C: Open 27	C:Open 27	C:Open 27										
0.02269 -0.02493 27028 110R IN 0.02269 -0.02264 -0.01399 27109 110E/IN 0.02269 -0.02	138 1	138 1		1 191 1	169.0 1	138 1	69.01	2 851 3	1 138 1	1 191 8	3 138 1	169.0 1	1 9E1 W	69.01			3 138 1	R 138 2		1 197 1	R 161 1			R 161 1	R 138 2	R 138 1	W 138 1	P69.0 1 T 161 1	C 138 1	C 138 2	P 161 1	F 161 1	P 161 1	R 161 1	P 161 1				R69.0 1	161 1	7 345 2	7 345 1	R 138 1	R 161 1	74 138 1						AP69.0 1	45 138 1	Т 161 1
0.02269 -0.02493 27028 110R IN 0.02269 -0.02264 -0.01399 27109 110E/IN 0.02269 -0.02	S 11GR RV	9 10GRNDV	O SANTER	S 11WI TA	0 11LEITC	16 110HIO													11GR		91 SBOWL G				95 11GR RV	95 11GR RV	79 10GRNDV	71 11RO T/ 70 5GRASL	26 110HIO	26 110HIO	42 11RQ T/	35 11MORG	42 11RQ T	93 IIWALKI 91 SBOWL (42 11RQ T	26 SABERD	21 11CORY	94 11GR S	93 11WALK	28 11GR R	61 14WILS	61 14WILS	95 11GR R					26 110HIO	.26 110HIO	27 11FARL	T 11RQ T	141 11SHRE	70 SGRASL T
0.02269 -0.02493 27028 110R IN 0.02269 -0.02264 -0.01399 27109 110E/IN 0.02269 -0.02	161 2709	138 2687		161 2704	138	136								138 291	169.0 295	138 272	138 271	161 270	191	138	161	100		161	161	161						T 161 270		T69.0 272 S 161 186	161 270											161	161	138	138	191		13	[6]
0.14991 0.77439 0.0378 0.77439 0.0329 0.77449 0.0329 0.77449 0.0329 0.77449 0.0329 0.7449 0.0329 0.7449 0.0329 0.7449 0.0329 0.7449 0.0329 0.7449 0.0329 0.7449 0.0318 0.7849 0.0398 0.7449 0.0398 0.7749 0.0398 0.7749 0.0389 0.7749 0.0380 0.7749 0.0380 0.7749	π π	10CULLEY	LIFARM I	11LR TAE	=	:	8	2 2	3 . 3	S.	Ξ	8	1 2	Š	a	₽ :	i A	H	7	5 7	SPARADI	RJRTOBC'		SPARADI	11GR RV	11GR RV	10COLLE	S 11GR RV	11GR RV	11GR RV	11EARL	11CORY	5 11EARL	3 11HARDS 2 SPARADI	B 11GR RV					0 11CORY	3 14WILSO	3 14WILSO	4 11GR ST	5	a .	A 4	7	н	- 0	9 4	11GR		
0.14931 0.03781 0.03787	439 27028	491 26851	989 27086	764 27034		819 27095	645 24067	27095	949 27109	11084	775 27126	1488 24084	1190 27057 1488 74077	0000 29196	375 27205	91272 116.	27126	27026	27028	321 18012	18012	1900 11095		1330 1801	7504 27026	7439 27028	2491 26851	1911 2721	5819 2709	1075 2709	3947 2702	4981 2702	2702	9733 2722: 1801:	5038 2702	7321 1801	5069 2702		8932 2719	0359 2702	9398 1803 9255 2755	9255 2755	5549 2709	1330 1801	0677 2685		7439 2702	5819 2709				2175 2712	-0.40803 18720
	77.0 16			•	:		•								•		,	. 99	1	'	•						•							,	•				•														
PERT RECOUR_SE 1500.0 254.5 PERT PERT GROUP_SE 1500.0 254.5 PERT PERT GROUP_SE 1500.0 275.1 R PERT GROUP_SE 1500.0 275.2 R PERT	0.149	-0.037	0.022	-0.055	0.022	0.055	0.137	0.054	-0.022	-0.083	0.066	-0.092	-0.027	-0.174	0.031	0.022	0.057	0.084	0.084	0.095	0.070	-0.09		0.083	0.029	0.116	-0.025	0.03	0.035	0.034	-0.138	0.08	-0.11	-0.02	0.14	.00	0.03	-0.03	0.03	60.0-	0.02	0.16	-0.07	0.09		-0.02	0.13	0.04	40.0	-0.10	0.02		0.02009
FEL GROUP_SB 11500.0 FEL GROUP_SB 1500.0 FEL GROUP_SB	264.5 *	275.5 R		301.6 8	311.0 •			396.2	433.9 *	476.4						709.3 *	819.7	864.1		870.9 *	901.8	1394.5 *	7:6141	- 508.7	30.8 R	341.6 •	348.4 R	418.1 •	510.3	616.0 •	720.6	921.6	994.3	1000.0	1065.3 *	1068.3 •	1092.2	1230.1 *	1237.1	1273.2 *	1300.9 *	1484.1	1488.7 *	-458.5		51.5 R	295.3	390,6	471.6	518.5	577.6		702.2 R
### GROUP_58 ### G	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0	1500.0	1500.0	1500.0	1900.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500,0
March Marc																	٠									•																											
6601 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ROUP_5B	ROUP_5B	ROUP_SB	ROUP_SB	ROUP_SB	ROUP_SB	ROUP_5B	ROUP_5B	BOUP_5B	ROUP_5B	ROUP_SB	ROUP_5B	ROUP_5B	BC_TOUR	ROUP_SB	ROUP_SB	ROUP_SB	ROUP_SB	ROUP_SB	ROUP_5B	ROUP_5B	ROUP_5B	JROOF_SB	ROUP_6B	SROUP_6B	ROUP 6B	ROUP_6B	ROUP_6B	ROUP 6B	BROUP_6B	BROUP_GB	GROUP 6B	3ROUP_6B	GROUP_6B	GROUP_6B	SROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP 6B	GROUP_GB	GROUP_6B	GROUP_GB	GROUP 7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP /B	GROUP 7B	E ditogo
### ### ### ### ### ### ### ### ### ##	5		ا ت	. e	ט		J	٠,		. •	,		- (,	- (- '	-	-			-	- '		-	-	. •	-		-	-																•	
	19,	194	1961	761	194	196	194		P61	192	194	P61	P61	761	561	P61	1961	194	194	P61	F81	P61	P61	P61	P61	194	P61	P61	P61 P61	P61	P61	P61	P61	P61	P61	P61	P61	P61	P61 P61	P61	P61	P61	P61	P61	. P61	. P61	1961	P61	. P61	.P61	1P61 P61	.P61	100.00

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OS;sav; MON; PHC,mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

(70) (10) (10)

The color of the
18.0 1.0
1.00 1.00
1.00 1.0
18.00 18.10 1.0
1500.0 714.1 0.02554 0.02754
CUP_78 1500.0 144.3 0.05279 CUP_78 1500.0 144.0 0.05279 CUP_78 1500.0 144.2 0.05279 CUP_78 1500.0 142.5 0.02779 CUP_78 1500.0 142.5 0.02779 CUP_78 1500.0 142.5 0.02774 CUP_78 1500.0 142.5 0.02774 CUP_78 1500.0 140.2 0.02774 CUP_78 1500.0 1410.2 0.02774 CUP_78 1500.0 1410.2 0.02784 CUP_78 1500.0 1410.2 0.05774 CUP_78 1500.0 1410.2 0.05774 CUP_78 1500.0 1410.2 0.05774 CUP_78 1500.0 1410.2 0.07424 CUP_88 1500.0 1410.2 0.057424 CUP_88 1500.0 1410.2 0.057424 CUP_88 1500.0 1410.2 0.057424 CUP_88 1500.0 1410.2 </td
CORP_7B 1500.0 134.2 CORP_7B 1500.0 135.2 CORP_7B 1500.0 1340.0 CORP_7B 1500.0 1340.0 CORP_7B 1500.0 1310.0 CORP_8B 1500.0 1311.7 CORP_8B 1500.0 1311.7 CORP_8B 1500.0 1311.7 CORP_8B 1500.0 1312.2 CORP_8B 1500.0 1312.2 CORP_8B
OUP_78 1500.0 OUP_88 1500.0
REAL AND REAL A
୍

Caser. 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Caser, G61P61OS, savt, MON: PHC.mon; SUBSYST: PHC, sub; CONT: PHC, con; EXCL: PHC, EXC

70	9.684	4.24	2.114	196.0	0.434		52.861	30.544	17.154	139.241	139.01	32.924	29.864	45.60%	64.541	29.751	186.01	35.5	***		22.338	22.204	17.424	32.974	6.44	10.821	10.67	31.134	30.08	34.464	
Bade	234.1	-115.0	-306,6	66.0	43.9			-128.2		65.8 1.	65.7 1:	93.3	1.78	23.9	-74.2						-104.2	-104.3	9 99-	-149.5	-112.3	316.4		-93.0			
Inthese Shibbeen	101.4	6'65-	-216.8	9.6	33.5		279.7	-128.7	162.3	43.5	43.3	82.6	75.2	20.2	-42.5	117.9	4 4			4	-76.2	-76.2	.53.6	9.99-	-88.8	257.4		-42.5			
Comments in	0.10355	-0.04050	-0.06443	0.03817	0.00700		0.06703	0.02091	-0.02054	0.07603	0.07574	0.02765	0.02520	0.00628	-0.05303	0 04769		0.000.0	0.00/33	0.01496	-0.03422	-0.03414	-0.01453	-0.08828	-0.02498	0.06225		-0.05303	:		
timic	419.7	-140,5	-446.0	95.9	73.8		343.6	-176.0	175.5	116.7	116.7	157.8	157.8	1	129.4		0.101	9 (-461.0	40.6	-154.0	-154.1	-190.8	-181.6	-217.0	444.5	343.6	-163.0	7 911	116.7	
S Fraditie	181.9	-82.6	-321.1	32.4	37.8		386.1	-176.9	176.6	77.1	0.77	139.6	136.4		2.00		132.4	152.1	-475.1	19.5	-112.6	-112.6	-141.9	-81.4	-193.5	361.7	7.874	20.00			
destings aby	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 2	C:Open 27109 11LEITCH 138 27141 11SHRBWS 138 1		27020 11FORV T 161 27021 11CORYDO	27020 11CO8Y T 161 27035		C:Onen 18012 SPARADIS 161 18926 SABERD T 161 1		26851 10CULLEY 138	27072 13E BV 161 27095	2002 11GB VV 161 27095 11GR RVR	O OTHOR SELECT AND ADEL SOURCE	2709E 11CB BUD 138	DET WAY MOTT COME	2702B 11GK KV	11087 BADIN 100 11192 ALBEMAKL	27012 11SMITH 345 27142 11SMITH	C:Open 27002 11ALCALD 345 27011 11PINEVI 345 1	C:Open 18698 5DAVSN 2 161 18740 5DAVSNRD 161 1	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	C:Open 11192 ALBEMARL 100 11291 OAKBORO 100 1	C:Open 11192 ALBEMARL 100 11291 OAKBORO' 100 2		C:Open 27020 11CORY T 161 27028 11GR RV 161 1	C:Onen 11101 8BAD CRK 500 11102 8JOCASSE 500 1	18012 SPARADIS 161 18691			n 11087. BADIN 100 11192 AUBERMAN 100	Dage Case	Base Case
TOOL 14 CANADA COMMITMENTS	n 79295 27551 14WILSOS 161, 27561 14WILSO7 345 1		F General School Co.		0.68235 2/020 IICOR: 1 ISI 2/035 IIMOKSW 191 I	TECORE 1 181	1 191 GD JEGOS COSON SET 10501 COOM, CO. 161 1	TOWERTH 139 20976		10947	LIGH KV ISI Z/095 LLUK KVK L38	TIGH KV ISI 2/039 IIGH NVN	TICK KVK 138		11GR RVR69.0	_	-0.09775 27126 110HIO C 138 27141 115HREWS 138 1	0.22525 27016 11ALCALD 161 27027 11FARLEY 161 1	-0,40803 18720 SRADNOR 161 19070 5GRASL T 161 1	-0.25375 27205 11E VIRH69.0 29571 20STEPHN69.0 1	0.47786 11192 ALBEMARL 100 11291 GAKBORO 100 2		11CTARPR 138 27094 11GR STL	11EARL N 161 27042	Obost 121 Birtgacas	SKOBE ISE DEGREE	SPARADIS 161 18926	5PARADIS 161 18691	BADIN 100 11192 ALBEMARL	11GR RV 161 27095	27028 11GR RV 161 27095 11GR RVR 138 1
107	19561			-0.08954	0.04295	0.02421		0.09276	0.03643	-0.02080	0.13473	0.13462	0.04676	0.04568	0.02700	-0.09289	0.05428	0.02038	0.02030	0.02588	-0.05053	-0.05047	0.05676	0.10672		- 0.02498	0.08727	0.06703	-0.09289	0.07603 -	0.07574 -
Eury C	1301	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.0001	1394.0	1478.2	1484.2		458.3	24.6 K	51.1 R	293.6	294.6	389.2	469.9	579.2 *	597.5	597.8	611.3	694.7 R	814.2 *	818.7 *	922 7 *	993.0	* 0 000		942.2	948.5	952.7	952.9	962,3	968.3
Tennatur	2		0.0047	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0051	0 0 0	0.0001	0.0051	2.0051	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0
	The state of	GROUP NE	GROOP NB	GROUP NB	GROUP_NB	GROUP_NB		GROUP_SB	GROUP_SB	GROUP SB	GROUP_SB	GROUP_9B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	GROUP SH	de ottogo	25 41045	akont an	GROUP SE	as Local	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB
	84 .	G61P61	961861	361961	G61P61	G61P61		G61P61	1961561	G61P61	G61P61	G61P61	1941901	G61P61	194190	G61P61	1961161	G61P61	961961	1961961	101100	104100	G61P61	192126	194199	194190	G61P61	061961	G61P61	061761	194190

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN) G61P610W: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161 LF Case; G61P610W.sav; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: G61P610W+G61P61.TRA

MUST Title:	:	MUST 3. 20 *** THU, JAN 11 2001 12:04 ***	7AN 11 2001	12:04 ***	(RSCV 414 A)					•		
Titiel: Title2:		1500 MW SPL	LIT BETWEEN	GREEN RIV	2004 WINTER PEAR BUAN DANG UNDE UNDE UNDE VERL DE AV 116 OGENERAL GGIPGIOM: 1500 MM SPLIT BETWEEN ORBEN RIV 161 4 PARADISE 161							
Monitor Fi	Monitor File: c:\BV-UBERS\NOBODY\PHC.mon Contingency File: c:\BV-USERS\NOBODY\PHC.con	ODY\PHC.mon										
Subsystem File: C:\B' Exclude File: none	Subayatem File: C:\BV-U3ERS\NOBODY\PHC.sub Exclude File: none	IODY\PHC.aub					•					
Reporting the first	200 violations	per transfer						100				
	•	Tennant I	5	agr.	Tobby Taskling Comstraint Coult	fangency Store	Stephile.	thate	Prof. Lat			70 •
	ALL_B	1500.0	-2984 0	0.02735	-0.35537 18468 8VQLUNTE 500 18469 SVOLUNTE 161 1 C:Open 18018 BPHIPP B	500 18468 8VOLUNTE 500 1	1214.2	1132.6	0.00623	193.9	175.3	10.461
G61P61 G61P61	ALL B	1500.0	-1384.7 * 0.9 R	0.06254	0.75412 16464 BBULL RU 500 18416 BVOLONIE 500 1 C.Open 12727 BANGENH - 27019 11BLUE L 161 29248 20BLIT C 161 1 C:Open 23248 OSWAGENH	138 23711 05LTV 138 1	239.9	239.9		237.6		13.164
G61P61	ALL	1500.0	56.7		0.77495.27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV		124.3	132.2	0.07787	70.2	74.6 15	150.391
G61P61	ALL_B	1500.0	57.7 *	0.13788	0.77429 27026 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV n reat 7 27096 11GR RVR C 138 1 C:Open 27095 11GR RVR	161 27095 ILUK KVK 138 138 27126 110HIO C 138	164.8	171.8	0.02660	5.76		35.214
G61P61 G61P61	ALL B	1500.0		-0.05065	0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1 C:Open 27012 11SMITH	345 27142 11SMITH 138	-181.1	-189.3	-0.01218	-36.7		35.801
061961	Att	1500.0			0,74073 27095 11GR RVR 138 27126 11OHIO C 138 2	27126 110HIO C	161.0	171.9	0.02424	88.8	94.8	30.21
G61P61	ALL_B	1500.0		-0.07528	8 .0.32916 27012 11SMITH 345 27142 11SMITH 138 1 C:Open 27099 11HARDBG 138	138 27100 11HARDN 138 1 138 27100 11HARDN 138 1	-285.5	-306.0	-0.06456			30.20
G61P61	ALL B	1500.0	320.9		-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1	161 27617 14HENDR4 136 1	188.6	176.0	-0.02229	143.3		26.391
Gerper	ALL	1500.0	663.3		0.37320 18012 SPARADIS 161 18926 SABERD T 161 1	161 18691 5BOWL GR 161 1	387.2	445.9	0.06347	279.6	321.7 1	16.604
194190	ALL_B	1500.0		0.07787	- 27028 11GR RV 161 27095	-	70.2	132.2			Ŧ	40.90
G61P61	ALL B	1500.0	802.9	0.07758	-0.25168 27205 118 VIEW69,0 29571 20STEPHN69.0 1	G:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	30.0	51.8	0.01485	4.6	22.1 3	31.264
Gellei	ALL S	1500.0	1005.0		- 27012 11SMITH 345 27142 119MITH 138 1		-242.4	-307.3			AA	10.314
G61P61	ALL_B	1500.0	1011.9		- 27006 11HARDN 345 27012 118MITH 345 1	1 191 an inces toyer 191	-240.7	-445.0	-0.06347	. 236.9	309.0	7.24%
G61P61	ALL B	1500.0		•	-0.37320 18692 SE BOWL 161 18926 SABERD T 161 1 C:Open 18012 SPARADIS	161 18691 5BUML OK 161 1 345 27142 11SMITH 138 1	166.7	231.9	0.04607	143.2		5.734
061P61	ALL B	1500.0	1247.4	0.05233	-0.15537 27094 11GR STL 138 27095 11GR RVR 138 1 C:Open 27561 14WILSO7	345 27563 14COLE 7 345 1	-73.6	-202.5	-0.07726	-44.7		6.424
G61P61	ALL B	1500.0	1372.2		0,79255 27553 14MILSOS 161 27561 14WILSO7 345 2	161 27561 14WILSO7 345 1	164.9	419.7	0.10360	92.0	234.2	2 66 7
G61P61	Att.	1500.0		0.18571		161 27561 14WILSO7 345 2	164.9	419.7	0000			
961961	GROUP 1B	1500.0	-486.5 *	-0.04107	0.38383 31221 MOBERLY 161 96354 STHMHIL 161 1 C:Open 96150 7MCCRED		-354.7	-334.7			-196.3 2	24.36%
G61P61	GROUP_1B	1500.0		·	0.95083 30593 FRKN 138 30650 GRAY SUM 138 1 C:Open 30593 FRKN		-305.0	-286.2	-0.02319	-156.4		30.274
061761	GROUP_1B	1500.0	-417.0	'	0,95083 30593 FRKN 138 30650 GRAY SUM 138 2 C:Open 30593 FRKN	138 30650 GRAX SUM 138 1	5 . 88 10 . 88	75.0	0.04074	52.1	-	156.384
G61P61	GROUP_1B	1500.0	-194.5	0.06919	0,71268 31221 MOBERLY 161 31222 MOBERLY 69.0 1 C:Open 31221 MOBERLY	31222	87.9	15.0	0.03992	51.0	-	154.768
G61P61	GROUP_1B	1500.0			-0,07826 27019 11BLUE L 161 29248 20BLIT C 161 1 C:Open 27079 11CLVRPR		240.6	239.9	-0.01863	237.6	237.0 1	13.314
194196	GROUP_1B	1500.0	60.7		0.77495 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV	27095	124.3	132.2	0.07284	6.69		140.27
G61P61	GROUP_1B	1500.0		0.12896	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1	161 27095 11GK KVK 138 2 345 27142 11SMITH 138 1	-181.1	-189.3	-0.01570	-36.7		37.184
G61P61	GROUP_1B	1,500.0	156.5 *	-0.05239	0.59587 27079 IICEVRPR 138 27034 IIGK SIL 138 I C:Open 27095 IIGR RVR	138 27126 110HIO C	164.8	171.8	0.02560	97.5		33.711
G61P61	GROUP_1B	1500.0		0.04229	0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 11GR RVR	27126 110HIQ C	161.0	171.9	0.02333	88.8 242.4	259.8 2	28.121
G61P61	GROUP_1B	1500.0		-0.07101	-0.32916 27012 115MITH 345 27142 115MITH	138 27100 11HARDN 138 1	-281.2	-306.0	-0.06157			28.114
1961961	GROUP_1B	1500.0	288.7	-0.07101	-0.32916 27006 11HARDN 345 27012 115MITH 345 I C:Open 27037	27617 14HENDR4	188.6	176.0	-0.02365	143.3	•	27.40%
G61P61 G61P61	GROUP 18	1500.0	333.9		-0.65304 31024 MARIES 138 96292 SMARIES 161 1 C:Open 31609 RIVMIN 1	HALLEN 1	0.59	-95.7	-0.07977	189.6	216.7 3	35.074
G61261	GROUP_1B	1500.0		0.08611	0.22068 31408 OVERTON 345 31409 OVERTON 161 1 C:Open 96162 7THOWHL	345 96354 STHMHIL 161 1 361 30805 JC FAIR 69.0 99	49.5	83.9	0.06379	38.8		102.314
061P61	GROUP_1B	1500.0	429.8	0.08016	0.39921 31239 MOREAU 161 31240 MUREAU 09.5 I C.C.P. 3000 CONTRACTOR OF 161 31222 MORERLY 69.0 2 Base Case		52.1	75.0		;		50.954
961861	GROUP_1B	1500.0		-0.14709	0.43126 30957 LKSIDE 1 138 31024 MARIES 138 1 C:Open 30532 ELDON	SBARNST	96.6	-143.0	0.09041	17.7	56.5	48.344
G61P61	GROUP_1B	1500.0		0.06357	0.29119 30026 APCH FLT 161 30027 APCH FLT69.0 1 C:Open 30677 GUTHRIE	161 31239 MOREAU 161 1	4 . 6	181.1	0.13142	-7.2		57.461
G61P61	GROUP_1B	1500.0	936.0 •	0.18444	-0.58636 30532 ELDON 161 31400 OSAGE 138 1	SGRAVOI	-118.1	-243.0	-0.08493	-119.9	207.4 2	23.33%
G61P61	GROUP 1B	1500.0		0.14608	-0,42811 30957 LKSIDE 1 138 31400 OSAGE 138 1 C:Open 30532 ELDON	SBARNET	-16.7	142.9	0.03929	27.7		15.344
G61261	GROUP_1B	1500.0		0.06042	-0.16073 30360 CLARK N 138 31515 PLPS N 138 1 C:Open 30532 ELDON	161 96168 5BARNST 161 I	124.0	286.1	0,08572	84.6		9.334
1961961	GROUP_1B	1500.0		0.12586	0.50760 30266 CAMPBELL 138 31273 MSD	MARIES	-38.6	-282.8	-0.13142	-23.0	197.0	11.484
1961961	GROUP 1B	1500.0	1323.7	0.18444	0.79255 27553 14WILGOS 161 27561 14WILGO7 345 1 C:Open 27553	27561	164.9	419.7	0.10021	92.0	234.2	3.491
G61P61	GROUP 1B	1500.0		0.17964	0,79255 27553 14WILSOS 161 27561 14WILSO7 345 2 C:Open	161 27561 14WILSO7 345 1	164.9	-202.5	-0.07209	44.7	-149.7	1.854
1961961	GROUP_18	1500.0		-0.08843	-0.15537 27094 11GR STL 138 27095 11GR RVR 138 1	C:Open 27561 14WILSO7 345 27563 14COLE / 345 1.	159.8	231.9	0.04388	143.2	207.3	0.824
G61.P61	GROUP_1B	1500.0	0 1462.4	0.04934	-0.57595 27126 110HIO C 138 27141 115HKKWS 138 1		,	9 6244	0.00334	793.9	780.5	306.6
G61P61	GROUP 2B	1500.0		0.02037	-0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1 C:Open	18018 SPHIPP B 500 18468 SVOLUNIE 500 1	1810.6	1724.0	0.04013	1264.6		9.24\$
G61P61	GROUP_2B	1500.0	-178		0.75412 18464 8BULL RU SOG 18468 8VOLUNIE 500 1	C:Open 1845/ WHENY I SOU 18458 EXCESS 200 C:Open 27008 11MIL CK 345 27121 11MILL C 138 2	240.0	239.9	-0.01990	237.6	237.5	12.494
G61P61	GROUP_2B	1500.0	8 .0 R	R -0,02004	0.01514 2/019 IIBLOB D 181 2/749 10077495 27028 IIGR RV 161 27095 IIGR RVR 136 2	C.Open 27028 11GR RV 161 27095 11GR RVR 138 1	124.3	132.2	0.06183	70.2		
G61P61	GROUP											

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OW sav; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

35.18%	27.37	24.36%	27.191	20.584	14.861	2.914	23.264	3// 77	14.948	14.944	5.50%	2.884	2.764	13.731	14.144	27.98%	163.074	162.861	30.451	21.33%	27.375	22.974	15.311	17.124	164.015	48.50%	41.67.4	15.178	16.621	15.06	153.534	43.05	39.364	50.93%	36.084	36,994	37.014	10.67	17.71	39.204	42.55	16.254	16.18%	8.351		3.224	4.614	6.02*		16.274	61.181	76.924	167.01
-		94.8				772.6				234.2					1197.8		-	• • •			94.8				34.6			. 477			74.6	•			9. 8.			175.5		22.1				-309.2	200.2		-143.2	234.2	7 . 167		165.2		
69.9	97.5	88.8	143.3	-240.7	279.6	1.258			4. 6	92.0	-236.9			9.667	1264.6	72.2	. 6.	6.69	5.76	-36.7	88.B	-240.7	143.3	279.6	16.6			9	1264.6	237.6	70.2	-36.7	97.5	44.5	37.5	-242.4	-240.7	159.7	279.6	9.4				-236.9	143.2	136.2	-81.4	92.0	92.0	793.9	1264.6	-141.4	70.2
0.06160	0.02130	0.01941	-0.02602	-0.04916	0.05960	-0.06247			0.01202							-0.02762	0.08408	0.08376	0.02338	-0.00238	0.02131	-0.05035	-0.01468	0,06505	0.07201				0.01455	-0.02408	0.07933	-0.01419	0.02942	-0,02012	-0.00930	-0,07655	-0.07655	-0.02412	0.06607	0.01644				-0.06607	0.05109	-0.08246	-0.04584	0.10416	0.10416	0.02930	0.09820	0.07606	20000
132.2	171.8	171.9	176.0	-306.0	445.9	1731.4	132.2	132.2	51.8 c c c c	419.7	-445.0	-307.3	-306.0	1132.6	1724.0	239.9	132.2	132.2	171.8	-189,3	171.9	106.0	176.0	445.9	6.99	132.2	132.2		1724 0	239.9	132.2	132.2	171.8	2.77	76.7	-307.3	-306.0	176.0	445.9	51.8	132.2	132.2	-306.0	-445.0	231.9	-202.5	-170.6	419.7	419.7	1132.6	1724.0	-164.2	
124.2	164.8	161.0	188.6	-285.5	387.2	1831.9	70.2	6.69	30.0	164.9	-344.5	-242.4	-240.7	1214.2	1810.6	239.9	124.3	124.2	164.8	-181.1	161.0	-287.2	188.6	387.2	-32.0	70.2	6.69		1214.2	239.9	124.3	124.2	164.8	62.0	82.0	287.2	-285.5	188.6	387.2	30.0	70.2	69.9	-240.7	-344.5	166.7	-73.6	-100,6	164.9	164.9	1214.2	1810.6	1.99.1	7.007
C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	138 27126 110HIO C	138 27126 110HIO C 138	14HENDRS 161 27617 14HENDR4 138	C:Open 27099 11HARDEG 136 27100 11HARDN 138 1	2/099 IIMAKUBS 138 2/100 IIMAKUN 230	ACUMBERL S00 18430 8DAVIDSO 500	Base Case		27061 11BONNIE 138	27561 14WILSO7 345	SPARADIS 161		Badd Case	BVOLUNTE	BWBNP 1 500 18468 8VOLUNTE	23248 OSWAGENH 138 23711 OSLTV	27065 IIBRWN P	27028 11GR RV 161 27095 11GR RVR	27095 11GR RVR 138 27126 11OHIO C 138	345 27142 115MITH 138	27095 11GR RVR 138 27126 11OHIO C 138	11HARDBG	115AKD86 138 27100 11AKDN 138	SPARADIS 161 18691 SBOWL GR 161	11CANAL 69.0 27260 11FALLS	n 27180 11CANAL 69.0 27260 11FALLS 69.0			C:Open 18018 8PHIPP 8 500 18468 8VOLUNTE 500 1	05WAGENH 138 23711 05LTV	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR 138	27126 110HIO C	24686 OSRICHCT69.0 24690 OSNWHTH 69.0	24686 0SRICHCT69.0 24689	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	27099 11HARDBG 138 27100 11HARDN	27560 14HENDRS 161 27617	C.Open 22617 05NPROCT 765 23190 05NFKOLI 138 1	11BONNIE 138 27141 11SHREWS	Bage Case	Base Case	Base Case	C:Open 18012 SPARADIS 161 18691 5BOWL GR 161 1	118MITH 345 27142 11SMITH	27561 14WILSO7 345 27563 14COLE 7	C:Open 27012 115MITH 345 27142 115MITH 138 1	14WILSOS 161 27561 14WILSO7	27553 14WILSOS 161 27561 14WILSO7 345	C:Open 18018 SPHIPP B 500 18468 BVOLUNTE 500 1	18457 8WBNP 1 500 18468 8VOLUNTE 500	27017 11ARNOLD 161 27023 11DELVIN	C:Open 27110 11LR TAP 138 29387 20JK8MIT 138 1
27028 11GR RV 161	0.59587 27079 11CLVRPR	0.74073 27095 11GR RVR 138	-0,42491 26851 10CULLEY 138 26879 10GRNDVW	-0.32916 27012 1	27012 IISMIIN	JVILLE 500 18430 8DAVIDSO	11GR RV 161 27095	1GR RV 161 27095	1E VIEW69.0 29571 20STEPHN69.0	4WILSOS	0.79255 2/553 14MILSOS IBI 2/561 14MILSOV 0.37320 18692 58 BOWL 161 18926 5ABERD T	- 27012 115MITH 345 27142 115MITH	- 27006 11HARDN 345 27012 11SMITH 345 1	-0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1	500 1846B SVÖLUNTE	1BLUE L 161 29248	1WC-DD 138 27295	0.77495 27028 110K KV 161 27095 110K KVK 138 2	10R RVR 138 27126 110HIO C	1CLVRPR 138 27094 11GR STL	1GR RVR 138 27126 110HIO C	1SMITH 345 27142 11SMITH	-0.32916.27006 11HARDN 345 27012 11SMITH 345 1	161 18926	1CANAL 69 0 27260	11CANAL 69.0 27260	- 27028 116K KV 161 27095 11GK KVK 135 4 - 27028 11GK KV 161 27095 11GK KVK 138 1		SVOLUNTE 500 18469 SVOLUNTE	0.75412 18464 8BULL RU SUG 18468 BVOLUNIS SUG	0.77495 27028 11GR RV 161 27095 11GR RVR 138	0.77429 27028 11GR RV 161 27095 11GR RVR 138	0.59587 27079 1	24689 05TREATY69.0	1.00000 24686 OSRICHCT69.0 24690 OSNWHIH 69.0	0.74073 27095 11GR RVR 138 27126 11OHIO C 138	-0.32916 27012 118M11H 345 27012 118M1TH 345	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138		0.37320 18012 SPARADIS 161 16926 SABERD 1 161 -0.25368 27205 11E VIEW69.0 29571 208TEPHN69.0	27028 11GR RV 161 27095 11GR RVR 138	27028 11GR RV 161 27095 11GR RVR 138	- 27012 119MITH 345	- 27006 11HARDN 345 27012 11SMITH 345	-0.09687 27126 110HIO C 138 27141 11SHREWS	-0.15537 27094 11GR STL 138 27095 11GR RVR 138	-0.28217 27099 11HARDBG 138 27100	0.07924 27061 IIBONNIE 138 2/141 IASHKEMS 0.0006 07661 14WILSOS 161 27561 14WILSO7	0.79255 27553 14WILSOS 161 27561 14WILSO7	1 191 STRUTOUS 9981 OOS STRUTOUR 83881 CC32C C	0.75412 18464 BBULL RU 500 18468 BVOLUNTE	-0.37001 27023 11DELVIN 161 29348 20GRNHLJ	0,10782 27023 1
0.10947 0.77429	-0.04986	0.03518	-6.04030	-0.05564	-0.05564	-0.10060		0.06160	0.02029	0.21168	0.21168	-0.04916	-0.04916	0.04925	0.10478	-0.02762	0.02685	0.14899	0.03954	-0.03238	.0.03863	-0.06052	-0.06052	0.09004	0.13908	0.13908	0.08408			0.13334	0.14056	0.14046	-0.05980	0.02975	-0.02941	0.04861	-0.08917	-0,04385	0.02593	0.09178	0.07933	0.07903	-0.07655	-0.07655	0.05851	-0.10087	0.05992	-0.05191	0.18671		0.12938	-0.08159	0.08687
	164.5 *	309.0	313.5 R	360.5	368.5	999.5 R	1002.9	1011.2	1074.5 *	1203.9 *	1203.9 *	1319.9	1329.0	-1656.8 *	-826.5	0.7 R	22.9	52.6	177.9	253.3	281.4 +	331.4 *	338.8	651.9 *	710.8 *	710.9	743.6		-1356.7 •	-649.5 +	55.7 *	56.7 *	137.1	141.4	180.5 R	223.7 *	224.9 *	288.2 R	632.2	4 . 577	781.6	788.1	847.6	853.4	1115 6 *	1277.7 •	1346.3 *	1348.5	1364.9		-1191.6 -	18.5 R	46.3 8
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1560.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0			1500.0	1500.0	1500.0	1500.0	0.0021	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	0.0051
G61P61 GROUP_2B 1500.0 72.7	GROUP_2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	ar dilong	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_38	de la comp	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP 4B	ı	GROUP_SB	GROUP SB	
061761	G61P61	GELPEL	G61P61	G61P61	G61P61	GEIPEI	G61P61	Gelpel	361961	G61P61	GEIPEI	GG1PG1	G61P61	061P61	194190	G61P61	061261	GelPel	GELFEL	061961	061P61	G61P61	GELPEL	G61P61 G61P61	061P61	1961961	G61P61	704	G61P61	G61P61	GEIPEI	061P61	G61P61	G61P61	GLIPEI	G61P61	194190	GEIPEI	061P61	661261	GGIPGI	G61P61	G61P61	GELPEL	GG1PG1	Gelfel	G61P61	G61P61	G61P61 G61P61		961961	192150	101100

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OW sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL; PHC.EXC

			0.15233	11GR RV 161 27095 11GR RVR 138 1	Ciopen 2/028 ligh NV let 2/095 ligh NVM 250 2	7 182	-280.0	0.01568	-164.4	-163.3 1	13.791
	1500.0	65,6 R	0.02687	0.83125 27105 11KENTON 138 29566 20SPURLK 138 1 0.83160 29295 20DAVIS 69.0 29319 20FAYETT69.0 1	2/105 IIKENIUN 138 29566 ZUSFUKLA 138 27113 IILGUDON 138 29202 20AVON 138	-74.7	-71.8	0.01817			\$7.178
	1500.0	101.6 R		.11DELVIN 161 27045 11WI TAP 161	20JKSMIT 161 29500 20POWELL 161	-206.8	-199.5	0.03721			49.984
	1500.0	123 6 *		11GR RVR 138	27095 11GR RVR 138 27126 11OHIO C	164.8	171.8	0.03365	143.9	139.3 4	42.121
	1500.0	132.7 R	-0.06865	11LR TAP 161 27045 11WI TAP	C:Open 29386 20JKSMIT 161 29500 20POWELL 161 1	232.0	-189.3	-0.00328	-36.7		43.478
GG1P61 GROUP_SB	1500.0	135.9 •	-0.06033	0.59587 27079 11CLVRPR 138 27094 11GR STL 138 1 -0 22016 27012 11CMTTH 145 27142 11SMTTH 138 1	11HARDEG 138 27100 11HARDN	-287.2	-307.3	-0.09575	-242.4		48.77
GEIPEI GROUP SB	1500.0	180.9		11HARDN 345 27012 118MITH	27099 11HARDEG 138 27100 11HARDN	-285.5	-306.0	-0.09575	-240.7		48.854
	1500.0	184.0 *	•	11172 SROBBINS 161 18040 SSANTERT	11101 8BAD CRK 500 11102 8JOCASSE	-205.3	-216.9	-0.06320	-110.3	121.9 3	38.364
	1500.0	185.1 *		11FLEMIN 138 27093 11GODDRD	29432 ZOMAYSVJ 138 29566 ZOSPURLK	167.6	172.0	0.01812	7.88		42.178
	1500.0	195.6		27095 11GR RVR 138	27095	161.0	95.0	0.03060	3. 1.		32.684
	1500.0	258.8 *	0.02267	-0.31945 27109 11LEITCH 138 27240 11LEITCH69.0 1	27141 119HKEWS 29566 20SPURLE	182.7	190.8	0.01812	113.8		14.261
GG1P61 GROUP_SB	1500.0	347.4 R		10CULLEY 138 26879	27560 14HENDRS 161 27617 14HENDR4	188.6	176.0	-0.01866	143.3		23.831
	1500.0	426.0 +		05GRAYSB69.0 24077	23051 05FULLSR 138 23173	-13.9	-58.5	-0.02596	-4.8		191.94
	1500.0	474.1 +		05GRAYSB69.0 29198	23051 OSFULLER 138 23173 OSMILLBR	7.9	57.4	0.02596	-1.2		187.084
	1500.0	502.8 →	•	SNANTAHA 161 11172	11101 8BAD CRK 500 11102 8JOCASSE 500	-184.2	-216.0	-0.06320	.89.2	121.0 2	29.174
G61P61 GRÖUP_SB	1500.0	543.2 *		05PLYM.G69.0 24091	23051 05FULLER 138 23173 05MILLBR 138	-20.0	58.9	.0.20.0	181	•	10.584
	1500.0	596.3 *		11W LEXN 345 27153	C:Open 27004 IIBRWN N 345 27015 IIW LEXN 345 1	2.754	n u	-0.02173	7.6-	٦	107.794
	1500.0	609.7	-0.07084	0.48510 24077 OSFRANKNES.0 24084 USFUZM.069.0 1	161 18691 580WL GR 161	387.2	445.9	0.06941	279.6		19.13%
GROUP_SB	1500.0	677.7	0.09600	27142		-242.4	-307.3				25.62%
	1500.0	680.5		11E VIEW69.0 29571 20STEPHN	C:Open 27061 11BONNIE 138 27141 11SHREWS 138 1	30.0	51.8	0.01857	. e	22.0	50.69
	1500.0	682.3		27006 11HARDN 345 27012	Base Case	-240.7	-306.0				25.604
-	1500.0	720.7	0.08603 -	11GR RV 161 27095	Base Case	70.2	132.2			, .	50.124
G61P61 GROUP_SB	1500.0	726.7	- 0.08571 -	11GR RV 161 27095	act addition there are an areas	69.9	132.2	-0.02795	7.76	11.3	74.691
	1500.0	944.7	-0.12920	29196 ZOARGIM 138 29198	23051 OSFOLDEN 138 231/3 USMILLER 23010 1184774 346 27147 1164177	1.07	231.9	0,05881	143.2		15.931
GROUP	1500.0	958.6	0.06809	-0,09687 27126 110HIG C 138 27141 115HKEWS 138 1	20LAURIC 161 29400 20LAURID 161	111.7	138.8	0.01575	75.4		9.641
GELPEI GROUP_SB	0.006.	1003.5	0.08039	11HARDBG 138 27100	27012 118MITH 345 27142 118MITH 138	204.6	285.3	0,05337	136.2		13.984
GROUP	1500.0	1046.7 *	-0.09600	5E BOWE 161 18926	18012 SPARADIS 161 18691 SBOWL GR 161	-344.5	-445.0	-0.06941	-236.9	. 409.5	7 794
GROUP_5B	1500.0	1064.8 *	-0.02802	08BUFTN1 138 25405 08BUFTN	25691 08SGROVE 138 25692	-410.2	1.640.0	F.2000.0	2.45		15.591
GROUP_SB	1500.0	1141.5 *	0.02248	24075 05LEONKY69.0 29406	23051 OSFULLER 138 23173 OSMILLER 138	2001-	-170.6	-0.05311	-81.4		12.341
	1500.0	1153.1 *	-0.06070	27061	OSFULLER 138 23173 OSMILLER 138	16.7	47.9	0.01632	15.5		18.54
GE1P61 GROUP_SB	1500.0	1169.0	0.026/2		29200 20AVON 345 29564 20SPURLK	151.0	190.1	0.02423	101.4		5.581
GROUP	1500.0	1202.3 *	-0.10720	11GR STL 138 27095	27561 14MILSO7 345 27563 14COLE 7 345	-73.6	-202.5	-0.08913	. 44.7		15.75
GROUP	1500.0	1384.8 *	0.02672	24063 05COALT 69.0 24070	23051 OSFULLER 138 23173	35.0	72.0	0.01632	92.0	234.2	3.324
G61P61 GROUP_SB	1500.0	1422.4 *	0.17916	14WILSOS 161 27561	27553 14WILSOS 161	164.9	419.7	0.09995	92.0	234.2	3.324
	1500.0		0.17916	14WILSOS 161 27561	27553 14WILSOS 161 27561 14WILSO/ 545	7.56.7	7.8.7	0.01180	14.1	31.0	2.40%
	1500.0	1432.0 *	0.02926	1.86814 24086 05DCHEMP69.0 24091 05N HAVH69.0 1	5PARADIS 161 18926	•	553.8	0.07126	288.5	395.3	0.021
gelpel group_5B	1500.0	1498.7.	98860.0	SPARGUIS 181 10691			•				
H9 diloso	1500.0	66.7	0.11739	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2	11GR RV 161 27095 11GR RVR	124.3	132.2	0.06624	70.2	74.6	127.225
GEIPEI GROUP 68	1500.0		0.11729	11GR RV 161 27095	27028 11GR RV 161 27095 11GR RVR 138	124.2	132.2	0.04400	5.79		27.681
	1500.0	193.4 *	0.03637	11GR RVR 138 27126 110HIO C	27095 11GR RVR 138 27126 11OHIO C 138		189.5	-0.01196	-36.7		28.18%
	1500.0	199.9	-0.04103	11CLVRPR 138 27094 11GR BTL	27012 118MITH 345 2/142 118MITH 130	161.0	171.9	0.01960	88.8		24.671
	1500.0	305.9	0.03554	0.74073 27095 11GR RVR 138 2/126 11OH1O C 138 4	11HARDBG 138 27100 11HARDN	-287.2	-307.3	-0.04878	-242.4		20.964
G61P61 GROUP_6B	1500.0	356.2 *	-0.03533	27006 11HARDN 345 27012 11SMITH	27099 11HARDBG 138 27100	-285;5	-306.0	-0.04878	-240.7	-258.4	20.915
Es GLOOD	1500.0	419.4 R	-0.03012	26851 10CULLEY 138 26879	14HENDR5 161 27617 14HENDR4	188.6	176.0	-0.01888	143.3		10.294
as duoas	1500.0	541.3 R	-0.18575	18422 8JVILLE 500 18430 8DAVIDSO	8CUMBERL 500 18430	1831.9	1731.4	0.05499	279.6		13.011
GROUP_6B	1500.0	754.3 *	0.07780	SPARADIS 161 18926 SABERD T	C:Open 18012 SPARADIS 161 18691 SBOWL OR 161 I	70.2	132.2				
G61P61 GROUP_GB	1500.0	936.0	0.06624 -	27028 11GR RV 161 27095 11GR RVR	Under Charles	6.69	132.2				27.76%
	1500.0		0.06600	27028 11GR RV 161 27095 11GR KVK 138 1	C:Open 18006 55HAW G7 161 18039 5C-37B 161 1	-113.1	-358.9	-0.24543	-33.7		34.094
	1500.0	11601.8	- 6462.0-	SRADNOR 161 18737 SNOLNULE	SWILSON SOO 18450 SHILSNIN	387.8	360.0	-0.01308	259.2	244.0	469.5
GG1P61 GROUP_68	1500.0		13595	115ARL N 161 27042	11CORY T 161 27028 11GR R	-52.2	-221.5	0.11304	6.285-	-307.9	
	1500.0	1291.6 +	-0.07780	5E BOWL 161 18926	C.open 18012 SPARADIS 161 18691 SBOWL GR 161 1	- 144.5 7.88.	9.88.9				17.971
	1500.0	1325.1	-0.24543 -	. 18034 SC-31 161 18035 SC-33 161 1							
			90701 0	n 77495 27028 11GB RV 161 27095 11GR RVR 138 2	161 27095 11GR RVR	124.3	132.2	0.07616	70.2	74.6	147.148
GGIP61 GROUP_/B	1500.0	* 0.68	0.13484	27028 11GR RV 161 27095	27028 11GR RV 161 27095 11GR RVR	124.2	132.2	0.07567	-36.7		39.22
	1500.0	149.2 *	-0.05496	27079 11CLVRPR 138 27094	27012	164.8	171.8	0.02765	97.5		36.754
, A.	1500.0	150.4 +	0.04676		27126 110HIO C	161.0	171.9	0.02520	98.8	a	33.521
•	1500.0	238.0 +	0.04568	27126 110HIO C 138	27099 11HARDBG 138 27100 11HARDN	-287.2	-367.3	-0.06793	-242.4	-259.8	31.784
	1500.0	255.5	0.870.0-	115HITH 345 27012 115MITH	27099	-285.5	-306.0	-0.06793	-240.7	F. 857-	
GE1P61 GROUP_7B	1500.0	261.2	20,0,0,0	THURSDAY OF THE PROPERTY							

23.874	16.13%	39.521	38.964	25.174	24.971	40.754	12.04	11.96%	4.984	6.774	22.23	5.124	3.154	3.15	1.514	10 05	9.081	43.364	15.694	87.52	21.14%	57.524	57.521	41.94%	41.941	62.191	61.60%	10.07	9.394	24.68\$	11.801	9.61	1.324	3.204	0.346		13.101	15.334	152.784	152.584	34.66%	31.634	29.87	29.864	16.91	42.694	42.144	9.98%	9.89.6	7.55%	5.47		1,,,,,
136.3				-104.3	-104.3	- 98.2	7.06.		-121.0	-308.5	-39.1	-150.4	234.2	234.2	-143.6		1196.5	139.5		-122.5		234.2	234.2	321.6	164.9	75.2	75.0	1.06	109.0		-65.9	457.9	-308.9	271.3	-61.5		773.8	237.6			-38.5	94.8	-259.5	-258.2	136.2			22.2		-309.2	200.7	1.691.	4.1.67
143.3	279.6		,	e 89	-68.4	-41.9	41.9		-89.2	-236.9	143.2	-44.7	92.0	92.0	-81.4	,	1264.6	143.3	-36.7	-117.7	5.4.	92.0	92.0	279.6	106.5	70.2	6.69	-7.1	87.2		-44.7	-275.1	-236.9	84.3	43.5		793.9	237.6	70.2	6.69	2,76	8.88	-242.4	-240.7	143.3			e.		-236.9	143.2	-44.7	92.0
-0.02027	0.06208		;	0.01501	-0.04136	-0.06421	-0.06421		-0.02837	-0.06208	0.04769	-0.07614	0.09968	0.09968	-0.04300		0.03566	0.01279	-0.03513	-0.01368	0.17045	0.18455	0.18455	0.05084	0.06987	0.00559	0.00557	0.10018	0.01905		-0.01564	0.12871	-0.05084	0,12999	-0.07262		0.01094	-0.02452	0.07896	0.07867	0.02635	0.02401	-0.06371	-0.06371	-0.02323	26.00.0		0.01490		-0.06432	0.04575	-0.07830	10563
176.0	445.9	132.2	132.2	51.8	-154.2	-172.0	-172.0	-306.0	-216.0	-445.0	231.9	-202.5	419.7	419.7	-170.6	;	1132.6	176.0	-189.3	-175.6	242.2	419.7	419.7	445.9	224.0	132.2	132.2	168,8	142.2	242.2	-202.5	334.9	-445,0	334.5	-142.2	9.087-	1132.6	2724.0	132.2	132.2	171.6	171 9	-307.3	-306.0	176.0	132.2	132.2	51.8	.305	0.544	231.9	-202.5	. 010
188.6	387.2	70.2	6.69	30.0	-101.0	-73.4	-73.4	-240.7	-184.2	-344.5	166.7	-73.6	164.9	164.9	2.2		1214.2	188.6	-161.1	-161.1	124.1	164.9	164.9	387.2	-105.9	7.0	7.0	44.7	0.001	£6.3	28.8	13.7	-344.5	84.3	83.1	165.8	1214.2	1810.6	124.3	124.2	164.8	181.1	-267.2	-285,5	188.6	20.2	6.69	30.0	-242.4	-240.7	166.7	-73.6	0 771
1	C:Open 11101 8BAD CRK 500 11102 8JOCKASEE 500 1	Base Case	Case	11BONNIE 138 27141 11SHREWS 138	100 11291 OAKBORO 100	BADIN 100 11192	in 11087 BADIN 100 11192 ALBEMARL 100		C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	18012 SPARADIS 161 18691 SBOWL GR 161	11SMITH	11087 BADIN 100 11088 HIGH KUN 100 27561 14WILSO7 345 27563 14COLE 7 345 1	27553 14WILSOS 161 27561 14WILSO7 345	27553 14WILSOS 161 27561 14WILSO7 345 1	C:Open 11087 BADIN 100 11088 HIGH RGK 100 99		18018	27617 14HENDR4	27012 11SMITH 345 27142 11SMITH 138	27560 14HENDRS 161 27617 14HENDR4	27561 14WILSO7 345 27563 14COLE 7 345	C:Open 25948 D8GIBSON 345 Z6081 D8GIB 138 I	14MILSOS 161 27561 14MILSO7 345	18012 SPARADIS 161 18691 SBOWL GR	27561	27553 14WILSOS	27028 11GR RV 161 27553 14WILGOS	27561 14WILSO7 345 27563 14COLE 7		CACO: NET 010/7	228 11GR RV 161 27553 14WILSOS	11GR RV 161 27553 14WILSO5	C:Open 18026 SBARKLEY 161 27619 14HOPCOS 161 1	11GR RV 161 50011 #2-161 161	27028 11GR RV 161 27553	27553 14WILSOS 161	C:Open 18018 8PHIPP B 500 18468 BVOLUNTE	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500	138	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27095 11dR RVR 138 27126 11OHIO C 138	C:Open 27012 11SMITH 345 27142 11SMITH	C:Open 27095 11GR RVR 138 27126 11OHIO C 138	C:Open 27099 11HARDEG 138 27100 11HARDN 138	C:Open 27560 14HENDRS 161 27617 14HENDR4	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161	Dane Cause		Base Case	Base Case C. Comm. 1801: EDABANTS 161 18691 SBOWE OR 161 1	345 27142 11SMITH 138		The Contract of the Contract o
-0.03641 -0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1	11172 SROBBINS 161 18040 SBANTEET	0.08708	- 27028 11GR RV 161 27095 11GR RVR.136	-0.25368 27205 118 VIEW69.0 29571 20STEPHN69.0	-0.06119 0.47769 11192 ALBEMARE 100 11291 OAKBONO 100 Z	0.75158 11087 BADIN 100 11192 ALBEMARL 100	0.75158 11087 BADIN 100 11192 ALBEMARL 100	-0.06793 - 27012 11SMITH 345 27142 11SMITH 138 1	11084 SNANTAHA 161 11172 SROBBINS 161	-0,37320 18692 SE BOWL 161 18926 SABERD T	-0.09687 27126 11OHIO C 138 27141 11SHREWS 138		WILSOS 161 27561 14HILSO7	0,79255 27553 14WILSOS 161 27561 14WILSO7	-0.50003 11254 HL	Sugares	-0,35537 18468 8VOLUNTE 500 18469 5VOLUNTE	0.75412	138 27094 11GR STL 138	0.40677 26855 10NEWTVL 138 26879 10GRNDVH 138	26857 10NEWTVL 161 27552 14COLE 5 161	-0.65624 26078 08OKLND 138 27871 16PETE	0.33082 0.79255 27553 14WILSOS 161 27561 14WILSO/ 345 1 0 33083 0 70354 27553 14WILSOS 161 27561 14WILSO7 345 2	0.37320 18012 SPARADIS 161 18926 SABERD T 161	-0.26522 27560 14HENDRS 161 27617 14HENDR4		19R RV 161 27095 11GR RVR	0.27780 26855 IONEWTVL 138 26857 10NEWTVL	0.14359 27106 11KNOB C 138 27135	0.14359 27135 11POND C 138 27144 11TIPTOP	0.17045 - 26857 JONEWICK LAI 27552 INCOME 5 45 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D.25533 18026 SBARKLEY 161 27619 14HOPCOS	0.43822 27028 11GR RV 161 27553 14WILSO5	-0.07093 -0.37320 18692 SE BOWL 161 16926 SABERU 1 161 1 n 17103 - 18012 SPARADIS 161 27616 14N HARS 161 1	-0.16831 26855 10NEWIVE 138 27079 11CEVRPR 138	-0.05225 26079 08PRNCTN 138 26081 08GIB 138	0.04451 -0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1	0.75412 18464 BBULL RU 500 18468 BVOLUNTE 500	27019 11BLUE L 161 29248	0.77495 27028 11GR RV 161 27095 11GR RVR 138	27095 11GR RVR 138 27126 11OHIO C 138	0.59587 27079 11CLVRPR 138 27094	0,74073 27095 11GR RVR 138 27126 110HIO C 138	-0.32916	138 26879 LOGRNDVW 138	0,37320 18012 SPARADIS 161 18926 SABERD T 161	27028 11GR RV 161 27095	27028 11GR RV 151 27095 11GR RVR 139 - 27028 11GR R	11SMITH 345 27142 11SMITH 138	27006 11HARDN 345 27012 11SMITH	-0.37320 18692	-0.09687 27126 110HIO C 136 2/141	WAY VETT 66017
0 R00																				٠		•																	· æ											,	•		•
0 347.0		674.0			9.998 0				0 1120.0				.0 1426.3			.0 1446.7		1	324.6				.077 0.3				0.506 0.		_		.0 1149.3			.0 1416.8			6 6181. 0				6.551 0.				274.9				0.0 862.5				1342.0
### TP		GROUP_7B 1500.0	GROUP 7B 1540.0		GROUP_78 1500.0	GROUP 7B 1500.0			GROUP 78 1500.0				GROUP 7B 1500.0		92	GROUP_7B 1500.0			GROUP_BB 1500.0				GROUP 88 1500.0			-	GROUP_BB 1500.0	GROUP 8B 1500.0	.,	•	GROUP_BB 1500.	GROUP BB 1500.		GROUP_8B 1500.0	GROUP_BB 1500.0		de discrete				GROUP_NB 1500.0				GROUP_NB 1500.0	GROUP NB 1500.0			GROUP_NB 1500.0			GROUP_NB	0.001 attach
From 061P61	GEIPEI	G61P61	Gelfel	G61P61	G61P61	Gelfel	G61P61	G61P61	G61P61	G61P61	G61P61	G61P61	GEIPEI	GG1P61	G61P61	061P61	G61P61	G61P61	G61P61	G61P61	061P61	G61P61	G61P61	Gelpel	G61P61	G61P61	061P61	GEIPEI	061P61	GG1P61	GGIPGI	G61P61	1961961	G61P61	G61P61 G61P61	G61P61		G61P61	061961	G61P61 .	G61P61	G61261	G61P61	G61P61	1961961	G61P61	G61P61	GG1P61	G61P61	G61P61 G61P61	GGIPGI	G61P61	

Case: 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OW.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL.: PHC.EXC

į.	96.	146.941	146.741	36.64*	38.68	33.414	32.181	32.184	23.80%	10.794	16.09	39.39¥	38.85	32.77	12.304	12.22	12.57	12.40%	19.961	196.61	6,73%	924	1.481	4.75	2.814	2.814	1.40%
	234.2 6.	74.6 146.	74.4 146.	101.6 36.							321.4 16.	39		22.0 32.	12	12	104.3 12.	104.3 . 12.		-					234.2 2.		143.6
- 10					•												•				1			7			•
Inthus	92.0	70.2	6.69	97.5	-36.7	8.88	-242.4	-240.7	143.3	-110.3	279.6			4.6			-68.4	-68.4	-41.9	-41.9	-236.9	143.2	-89.2	-44.7	92.0	92.0	-81.4
222200000	0.10563	0.07605	0.07577	0.02758	-0.01349	0.02513	-0.06846	-0.06846	-0.02032	-0.02333	0.06204			0.01498			-0.03267	-0.03262	-0.05059	-0.05059	-0,06204	0.04753	-0.02333	-0.07580	0.09915	0.09915	-0.04284
FEISTE	419.7	132.2	132.2	171.8	-189.3	171.9	-307.3	-306.0	176.0	-216.9	445.9	132.2	132.2	51.8	-307.3	-306.0	-154.1	-154.2	-172.0	-172.0	-445.0	231.9	-216.0	-202.5	419.7	419.7	-170.6
and Preshint	164.9	124.3	124.2	164.8	-181.1	161.0	-287.2	-285.5	188.6	-205.3	367.2	70.2	6.69	30.0	-242.4	-240.7	-101.1	-101.0	-73.4	-73.4	-344.5	166.7	-184.2	-73.6	164.9	164.9	-100.6
A TO CONTRACT OF THE PROPERTY OF THE PARTY O	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	C:Oben 27028 11GR RV 161 27095 11GR RVR 138 1	C:Opgn 27028 11GR RV 161 27095 11GR RVR 138 2	27095 11GR RVR 138	27012 11SMITH 345		C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	C:Open 18012 SPARADIS 161 18691 580WL GR 161 1	Dage Case	Base Case	C:Open 27061 11BONNIE 138 27141 119HREHS 138 1	Base Case	Date Change	C:Onen 11192 ALBEMARE 100 11291 OAKBORO 100 1	C:Open 11192 ALBEMARL 100 11291 OAKBORO 100 2	C:Open 11087 BADIN 100 11192 ALBEMARL 100 2	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	C:Open 18012 SPARADIS 161 18691 5BOWL GR 161 1	C:Open 27012 11SMITH 345 27142 11SMITH 138 1		C:Open 27561 14WILSO7 345 27563 14COLB 7 345 1	C:Open 27553 14WILSOS 161 27561 14WILSO7 345 1	27553 14WIL905	C:Open 27012 115MITH 345 27142 115MITH 138 1
301 max 8000 far; 1995 th. 1995 th. 1986 far.	0.79255 27553 14WILSOS 161 27561 14HILSO7 345 2	2 851 9VR 13G 17095 13G 8VR 138 2	1108 by 161 27045 1108 BVR 138	OTHOR SELECTION OF	11CLVRPR 138	110B RVR 138 27126	11SMITH 345 27142 11SMITH	11HARDN 345 27012 11SMITH	LOCULLEY	11172 SROBBINS 161 18040 SSANTEET 161 1		27028	27028 11GR RV 161 27095 11GR RVR 138 1	-0.25368 27205 11E VIEW69.0 29571 208TEPHN69.0 1		11HARDN 345 27012 119MITH	ATRIMADE 100 11391 CAKBORO	ALBEMARE, 100 11291 OAKBORO 100	HADIN 100 11192 ALBEMARL	BADIN	-0.37320 18692 SE BOWL 161 18926 SABERD T 161 1	-0.09687 27126 110HTO C 138 27141 115HREWS 138 1		11GR STL 138 27095	14WILSON 161 27561 14WILSON	14NIL905 161 27561 14WIL907	11BONNIE 138
102	0.18935	11477	77766	0.13466	60400	0.04556	0.0000	-0.07932	-0.03632	-0.02333 -	0.08696	0,07605 -	0.07577 -	0.02585	-0.06846 -	-0.06846	2000	10.04623	-0.08862	-0.08862	-0.08696	0.05416	- FEECU 0	-0 09234	47774	1444	-0.04826
Gay.	1345.9 *				151 1 4	238 6		258.5	347.9 R	498.5 +	674.9	815.3	822.1	843.4 *	947.8	1 7 7 1			1113 2 4	1113.2 *	1155.6 *	1 205 1 *	1 200				1650.3
Transfer	1500.0 1		0.0051	1200.0	0.0051	0.0001		1508.0	1599.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0031											
¥4.	GROUP_NB	. 40	GROOP SE	GROUP_SB	GROUP SB	es anoto	מוסמם	de Todo	GROUP SB	GROUP SB	BS GHORE	GROUP SB	GROUP SB	BS GEORGE	as altons	an alload	88 100W	da daoda	droug an	GROUP SB	GROUP SB	as airoan	as attomo	as alload	ag Joons	GROUP, SE	GROUP_SB
	G61P61		COLPOL	Gelpel	GelPel	101100	194190	794790	191790	194190	1961961	G61P61	G61P61	190135	191195	102100	79.7.00	Gerper	192740	194190	GATPAT	136136	Teatien	TOUTON	10.100	061761	194190

Scenario 8

Case: 2004 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case: G61P61OS.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

			SPA	SDA	8DA	ć
			C:Open 18012 5PA	C:Open 18698 5DA	C:Open 18430 8DA	400 F1001 T000
			pen	pen 1	pen 1	
4			0:5	0.0	ö	
'R.			İ.			
		- 1	161	161 1	161	
96	·	a a	E G	T T	30R	-
	·	T. C.	SBOW	SGRAS	SRAD	
Ε		3	3691	9070	3720	
E		9	1 19	1 191	161	
S+1		712	. sig	, N	DSO	
10	_		SPAR	SRADN	SDAVI	
Ъб	E 161		8012	8720	8431	a see to decrease and a second second
61	EN)		330 1	803 1	182	
U	12 OP 24	Coope Tank Care Care Care Care Care Care Care Care	0.41	0.40	0.19	
	MUST 3.20 *** WED, JAN 10 2001. 20:31 *** GAG SUMER PARK ECAR BASE CASE (FMC 161 KV TIE OPEN) GELEGIOS: 1500 MH SPLIT BETWESN GREEN RIV 161 ¢ PARADISE 161 USERS(NOBODY/PHC.mon USERS(NOBODY/PHC.con		0.17263 0.41330 18012 SPARADIS 161 18691 SBOWL GR 161	0.03489 -0.40803 18720 SRADNOR 161 19070 5GRASL T 161 1	750.0 457.2 R -0.02139 0.19082 18431 SDAVIDSO 161 18720 SRADNOR 161 1	
R.	31 - 161 N RI	â	0.172	0.034	0.021	
EP((PHC)					
2	2001 CASE IWEEN	Ser.	750.0 -246.3 *	404.2 R	7.2 R	
ER	W 10 BASE (T BE	Transfer Transfer Transfer	-24	40	45	
SF	D, JJ BCAR SPLJ mon con eub	fer.	0.0	150.0	0.0	
AN	PEAK OO MM \PHC. \PHC.	trani regis	15	7.	1	
${ m TR}$	*** MUST 3.20 *** HED. JAN 10 2001. 20:31 *** 2004 SUPHER PER SEAS CASE (FRC 161 R) GG196105: 1500 HM SPLIT BETWEEN GREEN RIV 1: NB-19528/N0BDV/PHC.en 5: NB-19528/N0BDV/PHC.en 5: NB-19588/N0BDV/PHC.en 6: NB-19588/NDB-1958	per				
囟	TT 3 P6100 R8/N R8/N R8/N	t tons				
PI	* MUS 200 G61 W-US1 W-US1 W-US1	/iola	١.	_ -	, -	ì
E	C:\E C:\E C:\E none	200	ALL	ALL	ALT.	ľ
Į	Title: Title: Title: r File: y File: m File:	irst				
72 []	HUST Titls: *** MUST 3.20 *** WED., TITLS: 2004 SUMES PERK SOM TITLS: GEFBGGS: 1200 MR SPE MONITOR File: C:\Mar.USERS\WBODV\PRC.com Contingency File: C:\Mar.USERS\WBODV\PRC.com Exclude File: C:\Mar.USERS\WBODV\PRC.com Exclude File: none	the f	200			
Ĕ	Mon: nting: Subey: Excl	cing Fr	192	P61	1 2	
FCITC MULTIPLE TRANSFER REPORT: G61P610S+UNIT1_P61.TRA	Ď	Reporting the first 200 violations per transfer for the first 200 violations are transfer from the first series for the first series fo	UNIT: P61	UNIT1 P61	UNIT: P61	
		- : Brownerschafter		_	_	_

Firston		in defenda	000000000	1	The state of the s	The second secon	Preshire	Same Co.	Prof.	tosse Fm3		00
Tron.	100	- TOXOT	283	13000	a sent separate 161 18691 SROWE OF 161 1	C:Open 18012 SPARADIS 161 18926 SABERD T 161 1	386.1	343.6	0.12406	7.672		\$50.05
NITI_P61	App.	750.0	7.94%	00777	C:Open 18698 5DAVSN 2	161 16740 SDAVSNRD 161 1	-475.1	-461.0	0.01456			2.621
NIII_F61	App.	0.067	7	60.00		C.Open 18430 BDAVIDSO 500 18698 5DAVSN 2 161 1	470.1	460.3	-0.00995	322.3		1.361
NITI_P61	Abb_#	0.05/	13/.E	-0.02135	101 T 10100 C 1000 T 101 1	SPARADIS 161 18691 5BOML GR 161 1	361.7	444.5	0.11751	257.4	316.7 9	9.014
NITI_P61	Abb	0.057	500.	0.16361	SECRET OR 161 1 Base Case		279.7	343.6				8.484
NITI_P61	ALL B	0.007	* * * * * * * * * * * * * * * * * * * *	0.12400		C:ODER 18717 SN NASH 161 19324 ZN NASH 69.0 1	279.6	299.6	0.01810	173.5		0.631
MITT DEL	ALL D	750.0	717.3 *	0.02740	DPKINV 161 18794 SLEWISBG 161 1	C:Open 18012 SPARADIS 161.18691 SBOWL GR 161 1	160.0	179.6	0.00127	101.1	102.0 0	0.534
	Î Î	!						;			9 0 0 1 4	14 674
NIT1_P61	GROUP_1B	750.0	-716.2 •	0.02058	1 C:Open 18407 8WEAKLEY	500 18422 BJVILLE	220.1	205.4	0.01505	101.7		16.27
NIT1_P61	GROUP_1B	750.0	-833.9 *	-0.04246	161 96354 STHMHIL 161 1 C:Open 96150 7MCCRED	345 96162 7THOMHL 345 1	-357.3	-334.7	12179	279.7		49.231
NIT1_P61	GROUP_1B	750.0	-251.8	0.16886	SBOWL GR 161 1 C:Open 18012 SPARADIS	191	1.906.1	176.0	0.01614	·		8.441
NIT1_P61	GROUP 1B	750.0	42.6 R	0.02100	10GRNDVW 138 1 C.Open 27560 14HENDRS	161 27617 14 HENDRA	454.1	0.01T	-0.01996			2.778
NIT1_P61	GROUP_1B	750.0	174.7 R	-0.02169	2 161 19070 SGRASE T 161 1 C:Open 18432 8MAURY	500 18433 SMACKT ISLA		8.00	0.04002	60.5		37.181
NIT1_P61	, GROUP_1B	750.0		0.05434	161 31240 MOREAU 69.0 1 Cropen 30677 GUINKLE	SCHOOL OF PARK 345 1	7	-175.7	-0,08681		-140.2 22	22.324
NIT1_P61	GROUP_1B	750.0	292.0	0.08550	CALIF 161 31409 OVERTON 161 1 C.Open 30134	18740 SDAVSNBD	-475.1	-461.0	0.01996	•		3.794
NIT1_P61	GROUP 1B	750.0	334.9 R	0.04211	Let 19070 Served 1 tet 1 C:Open 18430	S00 18698 SDAVSN 2 161 1	470.1	460.3	-0,01360	322.3		2.184
NIT1 PG1	GROUP_18	750.0	369.6 %	0.02010	SDICKSON 161 1	500 18698	212.1	202.3	-0.01620	144.3		3.354
MITI_P61	GROUP_IB	0.007	440.2	-0.02119	138 26879 10GRNDVW 138 1 C:Open 27551	14REID 5 161 27560 14HENDR5 161 1	185.7	175.5	-0.01612	162.3		3.24%
111 PC1	81 anoso	750 0	4 8 1 6 9	0.08656	345 31409 OVERTON 161 1 C:Open 96162 7THOMHL	345 96354 STHMHIL 161 1	245.0	287.6	0.07887	183.2	•	7.764
MITT 061	GROUP 18	250.0	502.7 *	0.07894	161 31222 MOBERLY 69.0 Z C:Open 31221 MOBERLY	161 31222 MOBERLY 69.0 1	35.0	74.7	0.04649	20.6	94.0	117.97
NITI P61	GROUP 119	750.0	508.4	0.07848	161 31222 MOBERLY 69.0 1 C:Open 31221	161 31222 MOBERLY 69.0 2	34.8	74.7	0.04555	20.2		8 26t
MIT1 P61	GROUP 1B	750.0	519.5	0.15935	1 C:Open 18012	SPARADIS 161 18691 SBOWL GR 161 1	361.7	6.44.5	0.11.0			7.994
NIT1 P61	GROUP_1B	750.0	524.3	0.12179 -	IS 161 18691 SBOWL GR 161 1		279.7	6.5.5.	0.08648	-2.3	-50.4 15	19.834
NITLEEL	GROUP_1B	750.0	556.8 *	-0.09925	138 96292 SMARIES 161 1	C:Open 31609 RIVMIN 1 138 31933 WALLEN 1 138 2	2.1.5	0.66				8.01*
NITI_P61	GROUP 1B	750.0	583.8	0.04002 -	MOREAU 161 31240 MOREAU 69.0 1	to do note to second to	9.00	299.6	0.01859	173.5	185.9	0.821
NIT1_P61	GROUP_1B	750.0	• 6.999	0.02996	H 161 19324 2N NASH 69.0 2	Croppen 18/17/ SN NASH 184 19524 AN NASH CO.	-114.9	-175.7			.,	2.45%
NIT1_P61	GROUP_1B	750.0	701.0	-0.08681 -	30233 GALIF 161 31409 OVERION 161 1 ANNO LAMB	161 31239 MOREAU 161 1	50.9	83.5	0.03250	33.1	57.1	109.0
NIT1_P61	GROUP_1B	750.0	137.6	0.04414	1 0:0010							;
		;			C:Open 18012 5PARADIS 1	C:Open 18012 SPARADIS 161 18926 SABERD T 161 1	386.1	343.6	0.12065	279.7	•	48.964
LP61	GROUP 2B	750.0	9.652.	0.16/62		C:Open 27560 14HENDR5 161 27617 14HENDR4 138 1	-176.9	-176.0	0.01838	128.7		8.50¢
NIT1_P61	GROUP_ZB	0.067	4 C. C. C. C. C. C. C. C. C. C. C. C. C.	0.0211	19070 5GRASL T 161 1 C:Open 18698	5DAVSN 2 161 18740 SDAVSNRD 161 1	-475.1	-461.0	0.01739	5.0961		1 705
MITT, P61	GROUP 2B	750.0	415.8 8	-0.02352	161 18720 SRADNOR 161 1	500 18698 5DAVSN 2 161 1	470.1	460.3	-0.01178	162.3		3.34%
MITT P61	GROUP 2B	750.0	476.2 R	-0.02141	138 26879 10GRNDVW 138 1	C:Open 27551 14REID 5 161 27560 14H5NDR5 161 1	185.7	F 606	-0.01492	144.3		2.681
MITL P61	GROUP 2B	750.0	482.5 R	-0.02030	SDICKSON 161 1	SOU 18698 SUAVSN Z 151 I	7.135	444.5	0.11364	257.4	316.7	9.141
JNIT1 P61	GROUP_2B	750.0	521.7	0.15866	ARADIS 161 18926 SABERD T 161 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 181 1	279.7	343.6				7.748
UNIT1_P61	GROUP_2B	750.0	529.3	0.12065 -	ARADIS 161 18691 SBOWL GR 161 1	Base Case 7.0000 18217 SN NDSH 161 19324 2N NASH 69.0 1	279.6	299.6	0.01767	173.5	185.9	0.454
UNIT1_P61	GROUP_2B	0.027	701.9 *	0.02847						į		•
				35151 0	0.41310 18012 SPARADIS 161 18691 SBOWL GR 161 1 C:Open 18012 SPARADIS	-	386.1	343.6	0.12410	2.19.7	249.3	12.24
UNITI_P61	GROUP_3B		428.5	0.05431	C:Open 26013	138 26110 08MIER 138 1	120.1	143.3	0.02556	5.095		2.031
UNITE BEI	GROUP 38	750.0	450.9 R	0.03128	1 C:Open 18698	5DAVSN 2 161 18740 5DAVSNRD 161 1	1.6/4-	444 5	0.11920	257.4		9.304
INITI PE	GROUP 3B	750.0	\$1005	0.16551	0.37321 18012 SPARADIS 161 18926 SABERD T 161 1	C:Open 18012 SPARADIS 161 18691 SHOWL GR LG. A	279.7	343.6				8.494
UNIT1 P61	GROUP_38	750.0	514.6	0.12410	18012 SPARADIS 161 18691 SBOWL GR 161 1	Base Case	-94.9	-114.2	-0.03469	-87.1		5.914
UNIT1_P61	GROUP 3B	750.0	557.3	-0.03473	-0.11979 27195 11DIXDAM69.0 27295 11MC-DD 69.0 1 C:Open 27201 11ACE	161 18691 SBOWL GR 161 1	160.0	179.6	0.00250	101.1		1.054
UNIT1 P61	GROUP_3B	750.0	686.4 *	0.02864	OPKINV 161 18/94 Stemioso 161 1 2 C.Open 18717 SN NASH	C. Open 18717 SN NASH 161 19324 2N NASH 69.0 1	279.6	299.6	0.01676	173.5	185.9	360.0
UNIT1_P61	GROUP_3B	750.0	739.8	0.02701						,		17 578
	;		,	0 02684	0.07024 22570 05SPORN 345 22987 05SPORNA 138 1 C:Open 22617 05NPROCT	: 765 23190 05NPROCT 138 1	202.9	189.7	0.02585	7.62.0		50.604
UNIT1_P61	GROUP 4B	0.06/		17516	161 18691 SBOWL GR 161 1	C;Open 18012 SPARADIS 161 18926 SABBRD T 161 1	386.1	9.5.5	20210	-128.7		9.974
UNITI_P61	GROUP_4B	0.007	16.4 R	0.02459	0.40677 26855 10NEWIVL 138 26879 10GRNDVW 138 1	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	7.00.	175.5	-0.01682	162.3	155.3	4.79%
THE TIME	dr diodo	750.0	411.1 R	-0.02480	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1 C:Open 27551	C:Open 27551 14RRID 5 161 27560 14HKWDK5 161 1	1 122	-461.0	0.01324	-360.5	-354.9	2.30%
UNITI_F61	GROUP 4B	750.0	428.1 R	0.03295	-0.40803 18720 SRADNOR 161 19070 SGRASE T 161 1 C:Open 18698	SDAVSN 2 161 18740 SDAVSNRD 151 1	470.1	460.3	-0.00912	322.3		1.164
UNIT1 P61	GROUP 4B	750.0	484.7 R	-0.02018	0.19082 18431 SDAVIDSO 161 18720 SRADNOR 161 1 C:Open 18430	EDANDANIC 161 18691 SHOWE GR 161 1	361.7	444.5	0.11968	257.4	316,8	9.48%
UNIT1 P61	GROUP, 4B	750.0	496.9	0,16659	0.37321 18012 SPARADIS 161 18926 SABERD T 161 1 C:Open 18012		7.672	343.6				8.84%
UNITI_P61	GROUP 4B	750.0	508.0	0.12570	18012 SPARADIS 161 18691 SBUM, GR 161 1	C.Onen 18012 SPARADIS 161 18691 580ML GR 161 1	160.0	179.6	0.00252	101.1	102.8	1.204
UNIT1_P61	GROUP 4B	750.0	677.8 *	0.02900	0,21065 18686 SKOPKINV 161 18794 SLEWISEG IN. 1							

100 m

		<u> </u>				- ,-			*		_		-د	<u>.</u>							-4	-	_			مد				مد	٠.	-	د مد	- 1		مد	_							*	٠.		_			-	*		٠.	<u>.</u>
0.014	٠	5		12.184		_					39.294				2.074			24.494						7.104			•	8.834				-	1.174					26.66%		_		30.604	·	1.21		9.29		us .	1 6.32%					9 0.41%
-306.4	, 046	-52.8	-69.7	-52.1	92.4	2.5	-9.0	-355.2	-111.3	316.9	23.8	-20.5	-166.9	7.1	103.7	306.6		157.7	248.9	P. 626.	317.0	136.7		316.3		533.5	249.0	185.2	317.9	316.5		-74.2	185.9	-104.3	101.8	150.0	249.1	-128.4	-354.1	-163.2	163.3	146.0	110		233.3	74.6	-211.8	249.2	-128.1	317.7	154.8	316.8	,	185.0
-216.8		-54.8	-73.2	-60,5	B B B	5.6-	5.1	-360.5	-71.3	257.4	6. 1	u u	-155.6	31.8	101.1	173.5		181.7	279.7	2.666	322.3	144.3		257.4	173.5	532.9	279.7	186.4	322.3	257.4		-42.5	173.5	-76.2	101.1	162.3	279.7	-128.7	2.0.5	-118.4	118.4	25.1	257.4		9.94	-18.8	-184.4	279.7	-128.7	360,5	162.3	257.4		177 6
-0.11968		0.05762	0.02778	0.03187	-0.08664	0.03259	-0.03259	0.01161	-0.08664	0.12240	-0.02748	0.03748	-0.02051	-0.03927	0.00419	0.01771		0.01674	0.11783	-0.02385	-0.01564	-0.02068		0.10851	0.01813	-0.00145	0.12392	0.01378	0.01465	0.11588		-0.06133	0.01946	-0.03955	96000'0	0.02042	0.11068	-0.02164	-0.02117	-0.09767	0.09767	0.23853	0.10460		0.23974	0.13727	-0.03997	0.12416	0.01529	0.01448	-0.01524	0.11820		
-446.0		-84.7	-95.1	-94.4	-217.0	45.7	-58.7	-461.0	-215.7	444.5	0.65-	343.6	-213.1	-83.7	179.6	299,6	2	205.4	343.6	450.3	460.3	202.3	343.6	444.5	299.6	748.4	343.6	203.0	-461.0	444.5	343.6	-129.9	299.6	-154.0	179.6	175.5	343.6	-176.0	-141.5	-223.5	223.6	226.7	2. 54.5	175.5	264.3	148.4	-245.9	343.6	-176.0	-461.0	175.5	444.5	343.6	
-321.1		386.1	6.96-	-100.7	-193.5	P. 0.7	0.7	-475.1	-175.8	361.7	-12.5	279.7	199.0	26.1	160.0	279.6	•	238.4	386.1	453.2	470.1	212.1	279.7	361.7	279.6	9.757	386.1	204.9	-475.1	470.1	7.575	-74.4	279.6	-112.6	160.0	212.6	386.1	-176.9	-122.5	-175.1	175.4	82.0	361.7	162.3	101.3	28.5	-218.8	386.1	-176.9	-475.1	470.1	361.7	279.7	
C:Open 18717 SN NASH 161 19324 2N NASH 69.0 1	1 104 10 2004 1094 1094 1094 1094 1094 1094 1094 1	C:Open 16012 SPARADIS 161 18926 SABERD T 161 1 C:Onen 27002 1185CALD 345 27004 11884N N 345 1	27002 11ALCALD 345 27004 11BRWN N 345	11GODDRD 138 27137 11RODBRN 138	8BAD CRK 500 11102 8JOCASSE	138	OSFULLER 138 23173 OSMILLER 138	SDAVSN 2 161 18740 SDAVSNRD	BBAD CRK 500 11102 8JOCASSE	SPARADIS 161 18691 5BOWL GR	C:Open 23051 0SFULLER 138 23173 0SMILLBR 138 1		C:Open 23031 03F0568 138 23173 03M15687 138 1	23051 05FULLER 138 23173 05MILLBR	SPARADIS 161 18691	C:Open 18717 SN NASH 161 19324 2N NASH 69.0 1	16991	SWEAKLEY 500 18408 SWEAKLEY	SPARADIS 161 18926	SWILGNTN 161 19086	C:Open 18696 SDAVSN Z 161 18740 SDAVSNKD 161 I	8DAVIDGO 500 18698 5DAVSN 2		SPARADIS 161 18691	C:Open 18717 SN NASH 161 19324 2N NASH 69 0 1	C:Open 18017 BHAYWOOD 500 18413 BCORDOVA 500 1	SPARADIS 161 18926	SSMYRNA 161 18744	161 18740 SDAVSNRD	C:Open 18430 BDAVIDSO 500 18698 5DAVSN 2 161 1	16491	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	H 161 19324 2N NASH	ALBEMARL 100 11291 OAKBORO	C:Open 11192 ALBEMARL 100 11291 OAKHOKO 100 2 C:Open 18012 SFARADIS 161 18691 5BOWL GR 161 1	I ALL BELLENDE TIPE OF MEDICAL FORCE TO SE	161 18926 SABERD T	10ABBRWN 138 27617	08GIBSON 345 26081 08GIB	C:Open 18698 5DAVSN 2 161 18740 5DAVSNRD 161 1	138 26879 10GRNDVW	10ABBRWN 138 27617 14HENDR4	C:Open 18012 SPAKADIS 161 18691 5BOWL GR 161 1	Wase Case	012 SPARADIS 161 18691 5BOWL GR 161	10ABBRWN 138 27617 14HENDR4	C:Open 26170 08AMO 345 26186 08BELLEU 345 1	C:Open 18012 SPARADIS 161 18926 SABERD T 161 1	14HENDRS 161 27617	5DAVSN 2 161 18740 5DAVSNRD 161	8DAVIDSO 500 18698 5DAVSN 2 161	C.Open 27551 14REID 5 161 27560 14HENDRS 161 1		
0.02887 0.63469 18717 SN NASH 161 19324 2N NASH 69.0 2	-0.3/3/1 1009/2 35 BORL 191 107/6 3/BBKD 1 101	0.17827 0.41330 18012 SPARADIS 161 18691 5BOWL GR 161 1	11DELVIN 161 27045 11W TAP 161	-0.41989 27086 11FARM T 138 27143 11SPENC 138	11172 SROBBINS 161 18040 SSANTEET 161	-0,05905 0.32764 27034 ILLR TAP 161 27045 LIWI TAP 161 1	CONTRACTOR CONTRACTOR	-0.40603 18720 SRADNOR 161 19070 5GRASL T 161	- 11084 SNANTAHA 161 11172 SROBBINS 161	18012 SPARADIS 161 18926 SABERD T 161	24091 05N HAVH69.0	18012 SPARADIS 161 18691 SBOWL GR 161	-0.09291 0.48488 24077 05*RANKN69.0 24084 USFLYN,GES.0 1	1.00000 29196 20ARGTM 138 29198 20ARGTM 69.0	0,21065 18686 SHOPKINV 161 18794 5LEWISBG 161	0.63469 18717 SN NASH 161 19324	.0.17005 -0.37321 18692 5E BOWL 161 18926 5ABERD 7 161 1	0.02307 0.15146 18610 5J VIL 3 161 18997 SCAMDN T 161 1	0.41330 18012 SPARADIS 161 18691 SBOWL GR 161	0.14097 18698 5DAVSN Z 161 19070 5GRASL T 161	-0,40803 18720	18674 SDICKSON 161	- 18012 SPARADIS 161 18691 SBOWL GR 161	0.37321 18012 SPARADIS 161 18926 SABERD T 161	0.02922 0.63469 18717 SN NASH 161 19324 2N NASH 69.0 2	0.02113 0.28802 18409 6JACKSON 500 18410 SJACKSON 161 1	0.41330 18012 SPARADIS 161 18691 SBOWL GR 161	0.41575 18711 SGALLATI 161 18890	-0.40803 18720 SRADNOR 161 19070 5GRASL T	0.19082 18431 SDAVIDSO 161 18720	0.37321 18012	11192	0.63469 18717 5N NASH 161 19324 2N NASH 69.0	11192 ALBEMARL 100 11291 OAKBORO 100	0.05848 0.47727 11192 ALBEWARL 100 11291 OAKBORO 100 1 0.02706 0.21065 18686 SHOPKINV 161 18794 5LEWISBG 161 1		0.06192 0.42491 26851 10CULLEX 138 25879 10CKNUVW 138 1	-0.40677 26855 10NEWITVL 138 26879 10GRNDVW	-0.65625 26078 080KLMD 138 27871 16PETE 138	-0.40803 18720 SRADNOR 161 19070 5GRASL T	-0.35118 27560	27552 14COLE 5	0.37321 18012 SPARADIS 161 18926 SABERD T	18012 SPARADIS 161 18691 SBOWL GR	26851 10CULLEY	0.08798 18012 SPAKADIS 161 27616 14N.MAKS 101	08PRNCTN 138 26081 08GIB 138		ONEMTYL 136 26879 10GRNDVW 138	-0.40803 18720 5RADNOR 161 19070 5GRASL T 161	0.19082 18431 SDAVIDSO 161 18720 SRADNOR	-0.42491 26851 10CULLEY 138	0.37321 18012 SPARADIS 161	0.12416 - 18012 SPARADIS 161 18691 SBOWL GR 161 1
		٠.	× 0×	œ		nz •		. 2					. ,	٠.						př	~ 1	æ 0							œ	· ~		•								~									٠.	e pe	· : =<	æ		
692.1		ŗ	122.8			285.0							545.6				734.0	1432.8	•			341.7			683.8	-451.8						515.3			726.4		-598.6					506.8					685.5		0 -245 7	Ī				
18 750.0	7.027	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.027	750.0	750.0	750.0	0.027	750.0	750 0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	0.087	0.057	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		0.027		750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	i	750.0	750.0	750.0	750.0	750.0	0 032
GROUP_4B	GROUP_4B	GROUP_SB	GROUP 5B	GROUP_SB	GROUP_SB	GROUP_5B	GROUP SB	GROUP 58	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP_5B	GROUP SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_6B	GROUP_6B	GROUP_GB	GROUP_6B	GROUP_6B	GROUP 6B	GROUP 6B	GROUP_6B	GROTTE 7B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	a language	GROUP_8B	GROUP BB	GROUP BB	GROUP_8B	GROUP 8B	GROUP_8B	GROUP BB	GROUP BB	GROUP BB	GROUP_BB	GROUP_BB	1	GROUP_NB	GROUP NB	GROUP. NB	GROUP NB	GROUP NB	
UNITI_P61	III_P61	UNIT1_P61	UNITI P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNIT PET	UNITI P61	UNIT1 P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNITI_P61	ONIT1 P61	UNIT1_P61	UNIT1_P61	JNIT1_P61	NIT1_P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	INITI_P61	UNITI P61	UNIT1_P61	JNIT1_P61	17111	UNITL P61	UNIT1 P61	UNIT1_P61	UNIT1_P61	UNITI_P61	CNIT1_P61	UNIT1 P61	UNITI_P61	UNIT1_P61		UNIT1_P61	UNITI_P61	UNIT! P61	UNIT1_P61	UNITI_P61	UNITI_P61	UNIT: P61	UNITI_P61	UNIT1_P61	UNIT1_P61	UNIT1_P61		UNIT1_P61	UNITI_P61	UNIT1 PG1	UNIT1_P61	UNIT1 P61	

Case; 2014 SUMMER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G81P61OS: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF Case; G61P61OS,sav; MON: PHC.mon; SUBSYST; PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

9.0	0.614	3.294	49.884	8.52%	2.941	1.55.1	8.75\$	8.454	11.134	1.104	0.324	-
ntBase	102.1	533.7	249.0 49		-354.8 2		316.6				101.6	
rithese F	101.1	532.9	7.672	186.4	-360.5	322.3	257.4		-42.5	173.5	101.1	
groß	0.00145	-0.00175	0.12390	0.01326	0.01502	-0.01031	0.11603		-0.05325	0.01927	0.00079	
Plate	179.6	748.4	343.6	203 0	-461.0	460.3	444.5	343.6	-129.9	299.6	179.6	
Prestitt	160.0	757.9	386.1	204.9	-475.1	470.1	361.7	7.672	-74.4	279.6	160.0	
27. E29	C:Open 18	C.C. 18017 8HAVMOOD 500 18413 8CORDOVA 500 1.							2 C:Open 11087 BADIN 100 11192 ALBEMARL 100 1			
entral control of the	0.21065 18686 SHOPKINV 161 18794 5LEMISBU 161 1	- 121 NOBSTATE Office one Workston Court Court	0.28802 18409 OUACKSON SUU 10410 SUACKSON LOI 1		A AAAAA 1979A EDADAMA 161 1907A GODAG, T 161 1	1 191 GONGS OCCAL TAI NOW DOLLARS TOUR COOK O	0.19002 A8431 3DRVIDSO 141 19725 SABERD T 161 1					
i	0.02760		0.02013	0.17186	26020.0	. 61990.0	-0.02239	12301.0	-0.09327	0.03106	0.02689	
But	712.1		474.1	-247.4	1.56-	382.4 K	4 5 2 5 . H	210.1	595.1 +	647.4	731.0 •	
Transcri	750.0	i	750.0	750.0	0.047	0.05/	750.0	7 00.0	0.052	250.0	750.0	
	GROUP_NB		GROUP SB	GROUP SB	GROUP SH	GROUP SB	GROUP_SB	GROUP SE	as alload	an alload	GROUP SB	ı
	UNIT1_P61		UNIT1_P61	UNIT1 P61	UNITI_P61	UNITY P61	UNIT1_P61	UNITE PET	THE PER	TOUT TO THE	UNITI PEL	'

C886: 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)
G61P61OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161
LF C886: G61P61OW.889; MON: PHC.mon; SUBSYST: PHC.8ub; CONT: PHC.con; EXCL: PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: G61P610W+UNITL_P61.TRA

HUST TILLS: *** HUST 3.20 *** TRU, JAN 11 2001 12:57 ***

TILLS: 2004 HUFFER BEAK SCAR BASE CASE (FRC 161 KV TIS OFEN)

TILLS: GILFGLOW 1500 FM SELT BEYMERN GREN RIV 161 & PARADISE 161

MONITOR FILE: C:\BV-USERS\NOBODY\PHC.con

Suboystem File: C:\BV-USERS\NOBODY\PHC.con

Suboystem File: C:\BV-USERS\NOBODY\PHC.con

UNIT1_P61 UNIT1_P61 UNIT1_P61 UNIT1_P61 UNIT1_P61 UNIT1_P61	ALL B 750.0	750.0	-1749.4 •	0.04664 .	-0.35537 18468 8VOLUNTE 500 18469 SVOLUNTE 161 1	C:Open 18015 SPHIPP B 500 18468 BVOLUNTE 500 1	1214.2	1132.6	0.01182	793.9		10.291
71_P61 71_P61 71_P61 71_P61 71_P61	ALL		-833.9	0.10385		2	1810.6	1724.0	0.08555	2264.6	1193.3	7.764
71_P61 71_P61 71_P61 71_P61	Act. B	750.0	0.7 R	-0.02483 -		C:Open 23248 05WAGSNH 138 23711 05LTV	239.9	445 9	17726	279.6		14.34
TI_P61 TI_P61 TI_P61	ALL B	750.0	358.9 *	0.16351	0.37320 18012 SPARADIS 161 18926 SABERD 1 161 1 -0 37330 38683 5F BOWL 361 18836 GARRED T 161 1	161 18691 SBOWL GR	-344.5	-445.0	-0.11726	-236.9		4.97
Ti_P61	ALL B	750.0	629.8 R			C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	188.6	176.0	-0.01479	143.3	134.0	1.39%
T1 P61	ALL_B	750.0	678.5 +				-287.2	-307.3	-0,01911	-242.4	-255.4	0.67%
	ALL_B	750.0	693.6	-0.02956	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	-285.5	-306.0	-0.01911	-240.7	-253.9	6.50¥
UNIT1 P61	GROUP 1B	750.0	-3531.3 *	0.02311	-0.35537 16468 8VOLUNTE S00 18469 SVOLUNTE 161 1	C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	1214.2	1132.6	0.00330	793.9	782.3	8.73V
UNIT1 P61	GROUP 18		-1532.1 •		BBULL RU 500 18468	500 18468	9.0181	1724.0	0.04880	1264.6		7.481
UNIT1 P61	GROUP 18		-489.2 *	-0.04084	MOBERLY 161 96354	7MCCRED 345 96162	-354.7	-334.7	-0,05292	-222.1		15.134
UNITI_P61	GROUP_18		-420.2 •	-0.04489	FRKN 138 30650	FRKN 138 30650	0.305.0	-286.2	-0.02301	-156.4	-146.7	18.334
UNIT1_P61	GROUP_1B		-420.2 *	-0.04489	FRKN 138 30650	FRKN 138 30650	0.206	-286.2	-0.02361	156.4		47:28t
UNITL_P61	GROUP_18		-194.3 4	0.06928	MOBERLY	C:Open 31221 MOBERLY 161 31222 MOBERLY 69.0 1	. 00	0.07	0.01997	0.18		96.081
UNITI_P61	GROUP_1B	750.0	-187.9	. 0.06888	TOT INSERT	1126 2221	239.9	239.9	-0.02242	237.6	237.6	7.011
UNITI_P61	GROUP_1B	750.0	0.8 R	-0.02342 -	27019 ILBLOS D. 161 29246 20811 C. 161 I	RIVMIN 1 138 31933 WALLEN 1	-65.0	-95.7	-0.08033	-25.4	-52.1	40.26\$
UNITE PET	GROUP 18	0.00			OVERTON 145 31409	7THOMHL 345	259.4	289.9	0.08098	188.6	_	12.231
UNITY PC	GROOP_IB	0.00.		26,80.0	SPARADIS 161 18926		387.2	445.9	0.11391	279.6	321.5	13.641
TWITE DE	ar anoan	0.007	430.5	0.000.0	MOREAU 161 31240	161 30805 JC FAIR 69.0	99 49.5	83.9	0.06370	38.8		30.551
INIT'I PEI	GROUP 18	750.0	472.7 R	-0.21272	SJVILLE	SCUMBERL SOO	1831.9	1731.4	-0.12998	835.1	7.8.7	3.414
INITI P61	dionip 18	750.0	561.7	0.04080 -	MOBERLY	Base Case	52.1	75.0				10.27
Lyd LINITI	GROUP 1B	750.0	594.7 R		10CULLEY 138 26879	C:Open 27560 14HRNDR5 161 27617 14HBNDR4 138 1	188.6	176.0	-0.01615	143.3	133.7	1.891
UNIT1 P61	GROUP 1B	750.0	5.665	- 76660.0	31221 MOBERLY 161 31222 MOBERLY 69.0 1	Base Case	51.0	75.0		;		7.97
UNIT1 P61	GROUP 1B	750.0	630.6		-0.37320 18692 5E BOWL 161 18926 SABERD T 161 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	-344.5	-445.0	-0.11391	-236.9	- 30B.	10.6
UNIT1_P61	GROUP_1B	750.0	709.0	0.06370 -	31240 MOREAU		98.8	63.9	0	. 36.7	1.69.	2.89
UNIT1_P61	GROUP_1B	750.0	721.7 •	-0.14738	0.43126.30957 LKSIDE 1 138 31024 MARIES 138 1	C:Open 30532 ELDON 161 96168 SBARNET 161 1	9	2				
					t 121 distribute about one minutesta series messes of	C. OSS STATEMENT SOO 18468 SVOLINTE SOO 1	1214.2	1132.6	0.00894	793.9	775.5	9.83
UNIT1_P61	GROUP_2B	•	-2057.1		BVOLUNIE SUU 18469	C.CPC 18457 RWRNP 1 500 18468 BVOLUNTE 500 1	1810.6	1724.0	0.07267	1264.6	1194.6	8.931
UNITI_P61	GROUP_2B	0.067	2.644	20,000.0	161 2924B 20BLIT C	23248 OSWAGENH 138 23711	239.9	239.9	-0.02369	237.6		7.41\$
UNITI_P61	GROUP_ZB	0.007	170.75	0.15834	SPARADIS 161 18926 SABERD T 161	18012 SPARADIS 161 18691	387.2	445.9	0.11339	279.6		13.47
MITT DEL	ar anoar	750	8 7 - F72	-0.17525		C:Open 18425 SCUMBERL 500 18430 SDAVIDSO 500 1	1831.9	1731.4	-0.10231	835.1	176.4	1.795
TOTAL DE	GROTTE 28	750.0	602.0 R		10CULLEY	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	188.6	176.0	-0.01852	143.3	2.261	
UNITI P61	GROUP 2B	750.0	634.7 *		-0.37320 18692 5E BOWL 161 18926 SABERD T 161 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	-344.5	-445.0	-0.11339			
ı	r					t deal printed and the contract of the contrac	2 4121	1132.6	0.01994	793.9	770.2	11.74%
UNIT1_P61	GROUP_3B		-1190.4 *		-0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 161 1	BVOLUNTE	1810.6	1724.0	0.11344	1264.6	1197.4	11.38
UNIT1_P61	GROUP_3B	750.0	-592.8	0.14608	0.75412 IMaga SHOLL RU SOU IGAGE SVOLUTE 500 1	23248 OSWAGENH 138 23711	239.9	239.9	-0.03141	237.6		9.824
UNITI_P61	GROUP_3B	750.0		-0.03441		C:Open 27065 11BRWN P 138 27150 11W CLIF 138 1	141.2	142.8	0.01356	72.2		13.551
UNIII_P61	GROUP 38	750.0	4 9 55 6	0.16506		C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	387.2	445.9	0.11884	279.6	321.8	14.504
TMITT DEI	at alload	750.0	. 8.809		SE BOWL 161 18926	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	-344.5	-445.0	-0.11884	5.96.5	3.506-	
MITT D61	GROUP 3B	750.0	710.8 *			C:Open 27180 11CAMAL 69.0 27260 11FALLS 69.0 1	-32.0	6.99	0.07201	9.91-		860 B
UNIT: P61	GROUP 3B	750.0	710.9 *	0.13908		C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 2	-32.0	6.99	0.00.0			
	•					t ned manufacture course and a manufacture course	1214.2	1132.6	0.02014	793.9	773.2	12.478
UNIT1_P61	GROUP 4B		-1027.1 *			18018 SPHIRE B SUD 18468	1810.6	1724.0	0.13668	1264.6	1196.9	12.621
UNITLP61	GROUP 4B	150.0	-495.9 *	0.17464		C:Open 1845/ BMBNY I SUU 18408 0VOLUNES 500 I	239.9	239.9	-0.02787	237.6	237.6	8.71
UNIT1_P61	GROUP_48	750.0	0.6 R	-0.02787	TIBEOR E 161 29248 ZOBELL C 161	24686 05RICHCT69,0 24690	82.0	2.77	-0.02011	44.5	41.2	22.354
UNIT1_P61	GROUP_48	750.0	163.2 R	-0.02941	DEKICHCIES.O	24686 05RICHCT69.0 24689	82.0	76.7	-0.00930	37.5	35.8	21.85
UNIT1_P61	GROUP 4B	750.0	180.5 R	-0.02941	L.00000 24888 OSKICHCIOS: 0 21030 CENTRE CO. C.		367.2	445.9	0.11985	279.6	321.7	14.894
UNITI_P61	dRoup_4B	750.0	352.8	18481.0	35 TOTAL 201 TOTAL	G:Open 27099 11HARDEG 138 27100 11HARDN 138 1	-287.2	-307.3	-0.03110	-242.4	-256.8	4.064
UNIT1_P61	GROUP 4B	750.0	461.6	-0.04345	THAPPN	27099	-285.5	-306.0	-0.03110	-240.7	-255.3	200.0
UNIT1_P61	GROUP_48	750.0	4/I.9	-0.02453	10CULLEY 138 26879 10GRNDVW	27560	188.6	176.0	-0.01662	143.3	309	5.53
TILL PET	OROUG 4B	0.050	6112.4	-0.16681	SE BOML 161	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	-344.5	-445.0	-0.11985	6.057-	175.4	1.548
UNIT POI	akoni a	0.056	625.7 *	0.02619		C:Open 22617 05NPROCT 765 23190 05NPROCT 138 1	194.4	210.8	0.02519	7.661		

		a
Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 161 KV TIE OPEN)	G61P81OW: 1500 MW SPLIT BETWEEN GREEN RIV 161 PARADISE 161	LF Case: G61P61OW.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Secretary of

والمناورة المدارية والمناولة

13.021	12.45\$	31.181	38.12%	6.89k	24.24	25.694	19.91	17.465		196.6	9.93	15.60	4.864	58.12%	\$0.70\$	8.184	25.37	1.954	17.33		12.541	5.48	÷ ;	6.01	14.104	5.424	1.464	1.334		\$06.6	8 · 8 S &	33.494	11.381	11.064	28.664	5.324	5.134	5,134	4.614	25.01	;	11.431	11.11	8.854	14.43.4	2 . 0 . 0	9.514	0.384		6.60%	14.00	1 661	1.541	4.724	_
	1198.3	165.2	-137.9	-163.3	-113.3	-47.7	139.2	-121.9	102.1	-257.3	-255.9	321.8	120.0	-16.0	11.2	-121.0	-26.3	223.0	-309.3	:	321.3	781.7	-308-	1145.9	321,5	-121.9	-256.2	-308.7		771.0	1196.4	139.2	122.8	-13.0	167.3	108.3	-1691-	169.1	108.0	180.5		772.8	1196.5	237.6	321.7	134.1	-366.1	-253.6		1170.7	321.5	.256.1	-254.7	-308.7	
793.9	1264.6	166.4	-141.4	-164.4	-117.1	-49.5	1.43.9	-110.3	7.86	-242.4	-240.7	279.6	113.8	8.4	-1.2	-89.2	-14.4	183.2	-236.9		279.6	835.1	-236.9	1264.6	279.6	-110.3	-242.4	-236.9		793.9	1264.6	143.3	-117.7	6.677	46,3	87.9	-106.5	106.5	87.2	-236.9	1,55.1	93.9	1264.6	237.6	279.6	143.3	-236.9	-240.7		1264.6	279.6	-110.3	-240.7	-236.9	
0.03489	0.13074	-0.06457	0.07796	0.01632	0.03954	0.01761	-0.03720	-0.06597	0.01786	-0.05030	-0.05030	0.12320	0.01786	-0.02618	0.02618	-0.06597	-0.02201	0.06813	-0.12320	-0.62201	0.10878	-0.13834	-0.10878	0.03112	0.11587	-0.03115	-0.02248	-0,11587	0.770.0-	0.01142	0.06921	0.02029	-0.02151	0.10463	-0.02114	0.03204	-0.09766	99260.0	0.03204	-0.10463	-0.07577	0.01654	0.11001	-0.02831	0.11811	-0.01573	-0.11811	-0.01826		0.03926	0.11583	-0.02610	-0.02301	-0.11583	
1132.6	1724.0	197.6	-164.2	-280.0	-199.5	-71.8	222.9	-216.9	172.0	-307.3	-306.0	445.9	190.8	-58,5	57.4	-216.0	-58.5	470.5	-445.0	6.96.	445.9	1731.4	-445.0	1724.0	445.9	-216.9	-307.3	-445.0	-306.0	1132.6	1724.0	176.0	-175.6	9. 10. 10	-142.1	142.2	-224.0	224.0	142.5	-445.0	1731.4	1132.6	1724.0	239.9	445.9	176.0	-445.0	-307.3	900	1724.0	445.9	-216.9	-307.3	-445.0	
1214.2	1610.6	199.1	-168.2	-281.7	-206.8	-74.7	232.0	-205.3	167.6	-287.2	-285.5	387.2	182.7	-13.9	7.9	-184.2	-20.0	437.5	-344.5	-15.3	387.2	1831.9	-344.5	1810,6	387.2	-205.3	-287.2	-344.5	-285.5	1214.2	1810.6	188.6	-161.1	387.2	-122.3		6.951-	156,9	99.3	-344.5	1831.9	1214.2	1810.6	239.9	387.2	188.6	-344.5	-287.2	-285.5	1810.6	387.2	-205.3	-287.2	-285.5	
1 001 BENEFIT OF SAN 18468 RVOLUNTE 500 1	SOO 18468 BVOLUNTE	NIVISULE EGGES 13 NEWS 1 CHOSEN	TIME 29387 20JKSMIT	27105 11KENTON 138 29566	29386 20JKSMIT 161 29500 20POWELL	27113 11LOUDON	29386 20JKSMIT 161 29500 20POWELL	11101 8BAD CRK 500	C:Open 29432 20MAYSVJ 138 29566 20SPURLK 138 1	27099	27099	18012	29432 20MAYSVJ 138 29566	23051 05FULLER 138 23173 05MILLER	23051 05FULLER 138 23173 05MILLER	11101 6BAD CRK 500 11102	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	27004	18012 SPARADIS 161 18691 SBOWL GR	C:Open 23051 05FULLER 138 23173 05MILLBR 138 1	C:Oben 18012 SPARADIS 161 18691 SBOWL GR 161 1	18425 SCUMBERL 500 18430 8DAVIDSO 500	C:Open 18012 5PARADIS 161 18691 5BOWL GR 161 1	TOO 18468 RVOLINTE 500 1	18012 SPARADIE 161 18691 SBOWL GR	11101 6BAD CRK 500 11102 8JOCASSE	27099 11HARDBG 138	18012 SPARADIS 161 18691 SBOWL GR 161	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	1 005 STATISTICS OF SOUTH SOUTH SOUTH	8 WHIND 1 500 18468 BVOLUNTE 500	26861 10ABBRWN 138 27617 14HENDR4 138	27560 14HENDRS 161 27617 14HENDR4 138	18012 SPARADIS 161 18691 5BOML OR	25948 08GIBSON 345 26081 08GIB	26861 10ABBRWN 138 27617	18012 SPARADIS 161 27616 14N.HARS	TOCOLLES 130 28879 TOCALDON	18012 SPARADIS 161 27616 14N.HARS	18012 SPARADIS 161 18691 580WL GR	C:Open 18425 SCUMBERL 500 18430 SDAVIDSO 500 1		BYOLUNTE 500	23248 OSWAGENH 138 23711 DSLTV	18012 SPARADIS	27560 14HENDR5 161 27617	18012 SPARADIS 161 18691 SBOWL GR 161	27099 11HARDBG 138 27100 11HARDN	C:Open 27099 11HARDBG 138 27100 11HARDN 138 1	C.C. 16457 8MRNP 1 500 18468 8VOLUNTE 500 1	18012 SPARADIS 161 18691	11101 89AD CRK 500 11102 8JOCASSE 500	27099 11HARDBG 138 27100 11HARDN	27099	C:Open 18012 SPARADIS 161 18691 SBUMB ON 191 1
TOTAL STATE OF THE	-0.35537 18468 BVOLUNTE	OLL RU SOO 18468 SVOLUNIE SUG	27023 11DELVIN 161	THE TANISH SELECTION OF A PROPERTY OF THE PARTY OF THE PA	27045	ODAVIS 69.0 29319 20FAYETT	11LR TAP 161 27045	SROBBING 161 18040	11FLEMIN 138 27093	11SMITH 345 27142	11HARDN 345 27012 11SMITH	SPANADIS 161 18926 SABERD T	THE STIES TIMEDONI	TURE U DE STATE	SCRAISBES, U. 24077	11177	05PLYM. G69.0 24091	1W LEXN 345 27153	E BOWL 161	0.48510 24077 DSFRANKN69.0 24084 DSPLYM.G69.0 1	1 191 T CHARLE SCORE 121 STURBARD FIRST AFFEC A	BUTUTELE SOO 18430	SE BOWL 161 18926 SABERD T 161		0.75412 18464 8BULL RU	0,37320 18012 SPANADIS 161 18926 SABEND 1 191	-0 32916 27012 115MITH 345 27142 115MITH 138	SE BOWL 161 18926			-0.35537 18468 8VOLUNTE 500 18469 5VOLUNTE 181 1	0.42491 26851 10CULEY 138 26879 10GRNDVW 138	0,40677 26855 10NEWTVL 138 26879 10GRNDVW 138	0.37320 18012 SPARADIS 161 18926	-0.65624 26078 080KLND 138	0.48035 26857 10NEWTVL 161 27552 14COLE 5 161	0.14359 27106 11KNOB C 138 27135 11POND C 138	-0,35116 27560 14HENDRS	0.35116 26861 10ABBKWN 138 Z/61/ 14ABBUDK4 Z30	-0.14339 2:123 11.000 12.000 10.000 0.000	0.60927 18422 8JVILLE 500 18430 8DAVIDSO 500		-0,35537 18468 8VOLUNTE 500 18469	0.75412 18464 BBULL RU 500 18468 BVOLUNIE	. 27019 11BLOS L 161 29248 AUBLIT C	0.37320 18012 SPARADIS 151 18928 SABERD :	-0.42491 26851 IOCOLDE 130 20019 IOCOLDE	- 1 27012 11SMITH 345 27142 11SMITH	-0.32916 27006 11HARDN 345 27012		0.75412 18464 SBULL RU SOO 18468 BVOLONIE	0.37320 ISOLE SEARCHES AND ISSUE STATEST	-0.32916 27012 119MITH 345 27142	-0.32916 27006 11HARDN 345 27012 11SMITH	10.37320 18692 5E BOWL 161 18926 SABERD T 161 1
100	0.08777	0.17068	-0.08415	0.08879	0.02798	0.07846	-0.07130	-0.06597	0.02316	-0.05750	09780	60.55	51200	0.02318	-0.10480	0.10480	61170 0-	52570.0	-0.17103	-0.07112		0.15283	-0.15283		0.02270	0.16211	-0.03228	-0.16211	-0.03278		0.04075	0.06179	-0.06124	0.14595	-0.04735	0.28547	0.06636	-0.10478	0.10478	0.06636	-0.13969		0.06381	0.13984	-0.02831	0.16444	-0.02158	- Canco o	-0.02887		0.03618	0.16198	0.02560	-0.03360	.0.16198
	-939.6	-507.4 •	17.9 R	45.3 R		x				7 2 200			343.2	347.1	425.2	473.H			587.6	607.3		0.685	657.5			362.1	5.575	* 6.619	625.4 *		-2002.5 *	985.6	236.7	402.1	418.0 *	\$07.0	4 4.969	640.7 *	640.7	9.059	719.8 R		-1278.8 +	-619.3 *	9.0	356.9 *	585.58	611.1	710.2		-2393.8 *	362.3	9.74	610.2	620.4
Teas	750.0	750.0	750.0	150.0	750.0	0.04/	750.0	0.001	150.0	700.0	0.067	0.067	750.0	750.0	750.0	750.0	0.00	0.001	750.0	750.0	;	750.0	750.0			750.0	750.0	750.0	0.057			750.0	0.007	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0
10	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_SB	GROUP 58	arione and another	akook a	GROUP SB	מייסיום	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_5B	GROUP SB	GROUP 5B	GROUP_SB		GROUP_6B	GROUP 6B		GROUP_7B	GROUP_78	GROUP_7B	GROUP 7B	GROUP_7B		GROUP_8B	GROUP_BB	GROUP BB	agont ag	GROUP BB	GROUP 8B	GROUP_8B	GROUP_8B	GROUP_8B	GROUP SE	GROUP_8B	a la constant	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP NB	1	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB
Prom	UNITI_PG1	UNITLP61	UNIT1_P61	UNIT1_P61	UNITL_P61	UNITI_P61	UNITI PEI	UNITI_P61	UNITI_PEI	UNITI_P61	UNITI_P61	UNITI_P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNITLP61	UNIT, P61	UNITI_P61	UNIT'I PG1	UNIT1_P61		UNIT1_P61	UNIT1 P61	}	UNITI_P61	UNIT1_P61	UNITI_P61	UNITI_F61	UNIT1 P61	ı	UNIT1_P61	UNITI_P61	UNITI_P61	UNITI PEI	UNIT_P61	UNIT1 P61	UNIT1 P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	TRA-TITUD	UNIT1 P61	UNITI_P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNITI_P61		UNITL_P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNITY PE1

Case: 2004 SUMMER PEAK ECAR BASE CASE W45P61_S: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 LF Case: W45P61_Saav, MON: PHC.mon; SUBSYST; PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: W45P61 S+UNIT1 P61.TRA	
S+UNI	
W45P61	, PARADISE 161
REPORT:	2001 22:08 *** CASE WEEN WILSON 345 6
TRANSFER	HUST Title: *** MUST 3.20 *** HED. JAN 10 2001 22:08 *** Title1: ZO04 SUMPER PEAK FOLR BASE CARE Title2: M45F61_E: 1500 HH SPLIT BETHERN HILSON 345 & PARADISE 161 Monitor File: C:\RV-USERS\WORDOV\PHC.mon Contaignery File: C:\RV-USERS\WORDOV\PHC.con SAUGHYELM File: C:\RV-USERS\WORDOV\PHC.con Exclude File: C:\RV-USERS\WORDOV\PHC.con
TIPLE	MUST 3. 2004 SU 445P61_ C:\BV-USER9\N C:\BV-USER\$\N C:\BV-USER\$\N
MUL	MUST Title: Title1: Title2: Title2: Monitor File: C:\BY Angency File: C:\BY baystem File: C:\BY Bxclude File: none
FCITC	MUS Monit Contingen Subayat. Exclu

(1) (1)

ر الرابع العلاق

\$55.0	0.014	51.284	51.72%	12.181	19.12%	19.361	114.281	74.324	11.634	10.06	39.291	9.27	2.364	24.931	2.07	0.591		24.491	3.081	4.49	2.534	7.12\$	7.101	0.64	3.394	49.87	8.834	1.52%	8.73\$	B.454	1.174	1.634	1.534	166.0	47.60%	36.964	11.70\$	2.154	13.664	30.60	\$ 66.5	1 214	9.124	8.294	1.05	50.131	9.324	1.284	3.134	9.134	8.504
185.9	-306.4	249.2	-52.8	-69.7	-112.3			0.6-	-355.2	316.9	-23.5	:	-20.5	7.1	103.7	185.9		157.7	396.4	-353.3	317.0	. 96.1	316.3	185.9	533.5	249.0	185.2	317.9	316.5	;	185.9	-104.2	-104.3	101.8	150.0	249.1	9.8	-354.1	-163.2	146.0	316.7		233.3	74.6	-211.8	249.2	-128.1	334.5	154.8	316.8	
173.5	-216.8	7.672	-54.8	-73.2	-88.8	8.66	5.6-	5.1	- 360.5	257.4	8.6-		5.51	31.8	101.1	173.5		181.7	399.5	-360.5	322.3	F. 641	257.4	173.5	532.9	279.7	186.4	322.3	257.4	,	173.5	-76.2	-76.2	101.1	162.3	279.7	-0.2	-360.5	-118.4	25.1	257.4		26.6	-18.8	-184.4	7.612	-128.7	-360.5	162.3	257.4	
0.01792	-0.11968	0.12768	0.05762	0.02778	-0.08664	-0.02694	0.03259	-0.03259	0.01161	0.12240	-0.02748		-0.02748	-0.03927	0.00419	0.01771		0.01674	-0,02385	0.02385	-0.01564	-0.02068	0.10851	0.01813	-0.00145	0.12392	0.01378	-0.01008	0.11588	;	-0.06133	-0.03965	-0.03956	96000.0	0.02042	0.11068	-0.02117	0.01467	-0.09767	19760.0	0.10460		47974	0.13727	-0.03997	0.12416	0.01529	0.01448	-0.01524	0.11820	
299.6	-446.0	343.6	-84.7	-95.1	-217.0	142.0	45.7	-58.7	-461.0	444.5	0.65-	343.6	0.59.0	-83.7	179.6	299.6		205.4	450.3	-461.0	460.3	343.6	444.5	299.6	748.4	343.6	203.0	460.3	444.5	343.6	-129.9	-154.0	-154.1	179.6	175.5	343.6	-176.0	-461.0	-223.5	223.6	444.5	343.6	175.5	148.4	-245.9	343.6	-176.0	-461.0	175.5	444.5	343.6
279.6	-321.1	386.1	-86.9	-98.9	-193.5	158.8	-5.1	7.0	-475.1	361.7	-12.5	279.7	E. 8. 1	26.1	160.0	279.6		238.4	453.2	-475.1	470.1	212.1	361.7	279.6	757.9	386.1	204.9	470.1	361.7	7.672	-74.4	-112.6	-112.6	160.0	212.6	386.1	-176.9	-475.1	-175.4	175.4	361.7	7.672	162.3	28.5	-218.8	386.1	-176.9	-475.1	185.7	361.7	7.672
C:Open 18717 5N NASH 161 19324 2N NASH 69.0 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	C:Open 18012 SPARADIS 161 18926 SABERD T 161 1	27002 11ALCALD 345 27004 11BRWN N	C:Open 27002 11ALCALD 345 27004 11BRWN N 345 1	11102 8-TOCASSE	20JKSMIT 161 29500 20POWELL	OSFULLER 138 23173	OSFULLER 138 23173 OSMILLBR	C:Open 18698 SDAVSN 2 161 18740 SDAVSNRD 161 1	161 18691 SBOWL GR	05FULLER 138 23173 05MILLBR		C:Open 23051 OSFULLER 138 23173 OSMILLER 138 1	OSFULLER 138 23173 OSMILLBR	SPARADIS 161 18691	C.Open 18717 SN NASH 161 19324 2N NASH 69.0 1		500 18408	C:Open 1801Z SPARADIS LET LESZE SABERU I LET 1		500 18698 SDAVSN 2	C:Open 18430 BDAVIDSO 500 18698 5DAVSN 2 161 1	.n 18012 SPARADIS 161 18691 SBOWL GR 161	161	C:Open 18017 SHAYWOOD 500 18413 SCORDOVA 500 1	SPARADIS 161 18926 SABERD T	SSMYRNA 161 18744 SMURFREE	C:Open 18698 SDAVSN Z 161 18740 SDAVSNKU Lei I C:Omen 18430 RDAVIDSO 500 18698 SDAVSN Z 161 1	SPARADIS 161 18691 SBOWL GR		11087 BADIN	OAKBORO 100	11192 ALBEMARL 100 11291 OAKBORO 100	SPARADIS 161 18691 5BOWL OR 161	14HENDR4	18012 SPARADIS 161 18926 SABERD T	C:Open 26861 10ABBR#N 138 27617 14HENDR4 138 1	161 18740 SDAVSNRD	10CULLEY 138 26879 10GRNDVW	10CULLEY 138 26879 10GRNDVW	C:Open 16861 10ABBRWN 138 27617 19HBNUK4 138 1 C:Open 18012 5PARADIS 161 18691 5BOWL GR 161 1			Giopen 18012 SPARADIS 161 18691 SBOWL GK 161 1	08AMO 345 26186 08BELLEU 345	C.Omm 18012 SPARADIS 161 18926 SABERD T 161 1	14HENDRS 161 27617	5DAVSN 2 161 18740 5DAVSNRD 161	BDAVIDS	SBOWL GR	
0.63469 18717 SN NASH	-0.37321 19692 5E	77 0.41330 18012 SPARADIS 161 18691 SBONL GR 161 1	0.08991 29496 20PITTSB 161 29602	0.07226 27023 11DELVIN 161 27045 11WI TAP	-0,41989 2/086 ILFARM I LJB Z/143 ILSPENC ISB	0,32764 27034 11LR TAP 161 27045 11WI TAP 161	-0.77645 24067 05GRAYSB69.0 29198 20ARGTM 69.0	0.77645 24067 05GRAYSB69.0 24077	-0.40803 18720 SRADNOR 161	- 11084 SNANTARA 161 111/2 0 47721 18012 SPARADIS 161 18926	0.48488 24084 05PLYM,G69.0 24091	- 18012 SPARADIS 161 18691	0.4848B 24077 DSFRANKN69.0 24084	:0 -0.29190 2705/ IIBKK LN 158 27064 IIBKNN N 138 1 12 1.00000 29196 20ARGTM 138 29198 20ARGTM 69.0 1	0.21065 18686 SHOPKINV 161 18794	14 0.63469 18717 5N NASH 161 19324 2N NASH 69.0 2	-0.3/341 10036 36 BUNLA ANT 10360	0.15146 18610 5J VIL 3 161 18997	7 0.41330 18012 SPARADIS 161 18691 580WL GR 161 1		0.19082 18431 SDAVIDSO 161 18720 SRADNOR 161	0.08756 18424 5J VIL 2 161 18674 5DICKSON	- 18012 SPARADIS 161 18691 0.37321 18012 SPARADIS 161 18926	0.63469 18717 SN NASH 161 19324	(3 0.28802 18409 8JACKSON 500 18410 5JACKSON 161 1	0.41330 18012 SPARADIS 161 18691 5BOWL GR	0.41575 18711 5GALLATI 161 18890 5LASCASS	57 -0.40803 18720 SRADNOR 161 19070 5GRASE T 161 1	0.1908.2 18131 SDAVIDSO 161 18120 SKANON OF OF THE PROPERTY OF 1721 18012 SPARADIS 161 18926 SABERD T	- 18012 SPARADIS 161 18691 SBOWL GR 161	0.75158 11087 BADIN 100 11192 ALBEMARE 100		0.47727 11192 ALBEMARK 100 11291 CAKBORC 100	0.21065 18686 SHOPKINV 161 18794 SLEWISBG	92 0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1	0.41330 18012 SPARADIS 161 18691 SBOWL GR 161	-0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138	10 -0.65625 26078 080KLND 138 27871 16PETE 138 1 50 -0.40801 18720 5PEDNOR 161 19070 5GRAST T 161 1	-0,40803 18/20 SKACHOR 181 19070 JOHN 1. 201 -0.35118 27560 14HENDR5 161 27617 14HENDR4 138	0.35118 26861 10ABBRWN 138 27617 14HENDR4 138	44 0.48035 26857 10NEWIVE 161 27552 14COLE 5 161 1	18012 SPARADIS 161 18691 SBOWL GR 161	26851 10CULLEY 138 26879 10GRNDVW 138	0.08798 18012 SPARADIS 161 27616 14N.HAR5 161	0.39931 26855 IONEMIVE 138 26857 0.03478 26079 08PRNCTN 138 26081	D 10/01 10/01 1/2 01/01/01	0.41330 18012 SPARADIS 161 18691	-0.40803 18720 5RADNOR 161 19070 5GRASL T 161	0.19082 18431 5DAVIDSO 161 18720	92 -0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1 84 0 17121 18012 SPARADIS 161 18926 SABERD T 161 1	0.37321 IBULZ SPARADIS 181 18328
0.02887	-0.16659	0.17827	0.06134	0.03077	0.02373	50650.0-	0.13737	-0.13737	0.03066	-0.08664	-0.09291	0.12768	-0.09291	-0.02550	0.03108	0.02854	00.1	0.02307	0.16267	0.04638	-0.02861	-0.02663	0.15248	0.02922	0.02113	0.17181	0.02137	0.03667	-0.02241	0.12392	-0.10743	0.03135	-0.05848	0.02706	0.06192	0.15391	-0.06137	-0.04740	-0.10484	0.10484	0.28544	0.11068	0.02042	0.24948	0.17627		0.17301	0.03412	-0.02094	-0.02092	0.16454
692.1	749.2	-238.5 +	34.9 R	122.8 R	263.3 R	285.0 R	370.2 +	432.7	460.0 R	460.7	4 4 9 9 . 7 *	500.1	545.6	630.6	632.4 +	700.2	0.457	-1432.8 *	-261.3 *	304.1 8	341.7 R	367.8 R	542.0	683.8	-451.8	-247.4	- 89.9	384.6 R	436.4 K	515.3	516.7 *	637.3 *	710.0 *	726.4	4	-276.2 *	-14.6	401.1 *	458.2	459,6	8.905	576.9	649.1	653,4 *	680.6		-245.7	43.2 8	466.9 R	487.5 R	\$ 1.503
GROUP 48 750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750,0	750.0	750.0	750.0	750.0	750.0	0.50.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	. 750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750 0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	750.0	750.0	750.0	750.0
GROUP 4B	GROUP_4B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP_5B	GROUP SB	GROUP 5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	akone se	GROUP_6B	GROUP_6B	GROUP 6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP_6B	GROUP 7B	GROUP 7B	GROUP_7B	GROUP 7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP_7B	GROUP 7B	GROUP_7B	as alload	GROUP BB	GROUP_8B	GROUP_8B	GROUP_8B	GROUP_6B	GROUP_8B	GROUP AR	GROUP_88	GROUP BB	GROUP_8B	10000	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_NB	· GROUP NB
DAIT1 P61	UNIT1_P61	UNIT1 P61	UNITI_P61	UNIT1_P61	UNITI_P61	UNITL P61	UNITI P61	UNITL_P61	UNITL P61	UNIT1 P61	UNIT1 P61	UNITL	UNIT1_P61	UNITI P61	UNIT1_P61	UNIT1_P61	ONIII FEE	JNIT1_P61	UNIT1_P61	UNITI P61	UNITL_PG1	UNIT1_P61	UNITI_PEI	UNITI_P61	196 11280	UNITI PEL	UNITI_P61	UNIT1_P61	UNITI_P61	UNIT1 P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNIT1_P61	1 124	UNITL P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNIT1 P61	UNIT1_P61	UNITI_P61	UNITL P61	UNITI_P61	UNIT1_P61	101771100	UNIT1_P61	UNITI_P61	UNIT1_P61	UNIT1_P61	UNITI_P61

Case: 2004 SUMMER PEAK ECAR BASE CASE
W4SP61_S: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161
LF Case: W4SP61_S.sav. WON: PHC.mon; SVBSYST; PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

5	0.614	3.291	49.88	8.524	2.944	1.554	9.75%	8.454	11.134	1.104	0.324	-
Philbade	102.1	533.7	249.0	185.2	-354.8	317.9	316.6		-74.2	185.9	101.6	
Tht Base	101.1	532.9	7.672	186.4	-360.5	322.3	257.4		-42.5	173.5	101.1	
	0.00145	-0.60175	0.12390	0.01326	0.01502	-0.01031	0.11603		-0.05325	0.01927	0.00079	
Cimit.	179.6	748.4	343.6	203.0	-461.0	460.3	444.5	343.6	-129.9	299.6	179.6	
ton pressingly	160.0	6.757	1986.1	204.9	-475.1	470.1	361.7	7.672	-74.4	279.6	160.0	
A CONTRACTOR OF THE PROPERTY O	C:Open 18012 SPARADIS 161 18691 5BOWL GR 161 1	C:Open 18017 SHAYWOOD 500 18413 SCORDOVA 500 1	C:Open 18012 SPARADIS 161 18926 SABERD T 161 1	C:Open 18743 SSMYRNA 161 18744 SMURFREE 161 1	C:Open 18698 SDAVSN 2 161 18740 SDAVSNRD 161 1	C:Open 18430 8DAVIDSO 500 18698 SDAVSN 2 161 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	Baso Case	C:Open 11087 BADIN 100 11192 ALBEMARL 100 1	C:Open 18717 SN NASH 161 19324 2N NASH 69.0 1	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	
LOUP = CONTRACT CONTR	0,21065 18686 5KOFKINV 161 18794 5LEWISBG 161 1	0.28802 18409 BJACKSON 500 18410 SJACKSON 161 1	0.41330 18012	0.41575 18711	-0.40803 18720			18012	0.75158 11087 BADIN 100 11192 ALBEMARL 100 2	0.63469 18717 SN NASH 161 19324 2N NASH 69.0 2		•
i i	0.02760			0.02052	0.03689	-0.02259	0.16227	0.12390 -	-0.09327	0.03106	0.02689	
6012	712.1 •	-474.1 *	-247.4 *	750.0 -93.7 +	382.4 R	432.9 R	510.1	515.4	595.1 *	643.4 *		
Transfer of the Control of the Contr	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	
***	GROUP_NB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	GROUP SB	ES GROUP	GROUP SB	GROUP_SB	GROUP SB	GROUP_SB	
Prop.	UNITI_P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNIT1 P61	UNITY_P61	_

Case: 2004 WINTER PEAK ECAR BASE CASE W4SPG1_W: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 LF Case: W4SPG1_W.say; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL.: PHC.EXC

FCITC MULTIPLE TRANSFER REPORT: W45P61 W+UNIT1 P61.TRA
MUST Title: *** MUST 3.20 *** THU, JAN 11 2001 15:20 ***
Title1: 2004 WINTER PEAK BCAR BASE CASE
Title2: H45P61_H: 1500 MM SPLIT BETHERN MILSON 345 & PARADISE 161
Monitor File: C:\Bu-U9ERS\NOBODY\PHC.mon
Contingency File: C:\BV-USERS\NOBODY\PHC.con
Subsystem File: C:\BV-USERS\NOBODY\PHC.sub
Exclude File: none

10.29%	9.544	14.34	4.974	1.394	0.674	0.554	\$€.73	7.484	15.134	18.334	18.334	87.284		40.76	12.23%	13.64%	30.554	3.414	10.27	1.894	7.974	4.27	2.89%		\$ 69.6	\$6.93	7.414	13.478	794	4.104		11.74%	9.828	13.551	14.604	5.23\$	F 60 . 8	8 · 09*	12.47\$	12.624	8.714	22,354	21.854	4.064	3,951	3.294	\$. S3 t	-
	1193.3	-				-253.9		1169.9				2.2		•				7.577	-	133.7		-308.7	-92.1					321.6					237.6					32.3	173.2	1196.9 1				321.7			-309.1	1
793.9	1264.6	220.6	-236.9	143.3	-242.4	-240.7	793.9	1264.6	-222.1	-156.4	-156.4	52.1	51.0	237.6	7 801	279.6	38.8	635.1		143.3		-236.9	7.96.7		793.9	1264.6	237.6	279.6	142.1	-236.9		793.9	1264.6	72.2	279.6	-236.9	-16.6	-15.4	793.9	1264.6	237.6	44.5	37.5	279.6	242.4	143.3	6 926	
0.01182	0.08555	-0.02483	-0.11726	-0.01479	-0.01911	-0.01911	0.00330	0.04880	-0.05292	-0.02301	-0.02301	0.04080	0.03997	-0.02242	-0.08033	0.00098	0.06370	-0,12998		-0.01615		-0.11391	83000		0.00894	0.07267	-0.02369	0.11339	-0.10231	-0.11339		0.01994	0.11344	0.01356	0.11884	-0.11684	0.07201	0.06708	0.02014	0.13668	-0.02787	-0.02011	-0.00930	0.11985	-0.03110	-0.01662	000	
1132.6	1724.0	239.9	445.0	176.0	-307.3	-306.0	1132.6	1724.0	-334.7	-286.2	-286.2	75.0	75.0	239.9	7.56-	445 9	63.59	1731.4	75.0	176.0	75.0	-445.0	6.03	0.641-	1132.6	1724.0	239.9	445.9	1731.4	1/6.0		1132.6	1724.0	141 8	445.9	-445.0	6.99	6.99	1132.6	1724.0	239.9	2.77	76.7	445.9	-307.3	176.0		
1214.2	1810.6	239.9	387.2	198.6	-287.2	-285.5	1214.2	1810.6	-354.7	-305.0	-305.0	88.5	87.9	239.9	-65.0	4. V. V.		ā	52.1	188.6	51.0	-344.5	38.8	-36.6	1214.2	1810.6	239.9	387.2	1831.9	188.6		1214.2	1810.6	6.862	387.2	-344.5	-32.0	-32.0	1214.2	1810.6	239.9	82.0	82.0	387.2	-287.2	2.885.5	0 1	
500 18468 BVOLUNTE 500	18468 BVOLUNTE	05HAGENH 138 23711	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	14HENDRS 161	27099 11HARDRG 138 27100 11HARDN	27100 11HARDN	C.ODER 18018 8PHIPP B 500 18468 SVOLUNTE 500 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	7MCCRED 345 96162	FRKN 138 30650	FRKN 138 30650	MOBERLY 161 31222	MOBERLY 161 31222 MOBERLY	OSWAGENH 138	RIVMIN 1 138 31933	C:Open 96162 7THOMHL 345 96354 5THMHIL 161 1	COOpen 18012 SPARADIS IST ABOUT SECUL OR TOL 1	ACTIMEDEL FOR 18430 ADAVIDSO 500 1	State Case	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	Base Case	C:Open 18012 5PARADIS 161 18691 5BOWL GR 161 1		C:Open 30532 ELDON 161 96168 SBARNET 161 1	C:Open 18018 8PHIPP B 500 18468 BVOLUNTE 500 1	C:ODen 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	OSWAGENH	Œ.	18425 BCUMBERL 500	C:Open 27560 14HENDRS 161 27617 14KENDR4 138 1	C:Open 18012 5PARADIS 161 18691 550WL GR 161 1	C:Open 18018 8PHIPP B SOD 18468 BVOLUNTE 500 1	18457 BWBNP 1 500 18468 BVOLUNTE		C:Open 27065 IIBKWN P IJB 2/ISU IIM CAIR IJS I		C:Open 27180 11CANAL 69.0 27260 11FALLS 69.0 1			C:Open 18018 8PHIPP B 500 18468 BVOLUNIS 500 1	Coopen 18457 BMBNP I SOU LEVER GVOLDATE JOS.	24686 OSRICHCT69.0 24690	24686 05RICHCT69.0 24689	18012 SPARADIS 161 18691 SBOWL GR	27099 11HARDBG 138 27100 11HARDN	27099 11HARDEG 138 27100	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	
- 12	0,75412 18464 BBULL RU 500 18468 SVOLUNTE	27019	0.37320 18012	SE BOWL 151 18926	SAF UTTABLE CENTE STORE D.	-0.32916 27006 11HARDN 345 27012 115MITH	1 131 STATISTICS OF THE OF STATISTICS OF THEFT OF THE OF	0 7541 19464 ARIEL RI 500 18468	O. STATE TOTAL MORENIA TO THE SEASON TOTAL TOTAL OF THE SEASON TOTAL TOT	0.95083 30593 FRKN 138 30650	0,95063 30593 FRKN 138 30650	0.71268 31221 MOBERLY	0.06888 0.70850 31221 MOBERLY 161 31222 MOBERLY 69.0 1	- 27019 11BLUE L 161 29248 20BLIT C	-0.65304 31024 MARIES 138 96292 SMARIES	0.22068 31408 OVERTON 345 31409	0.37320 18012 SPARADIS 161 18926	0.39921 31239 MOKEAU 161 31240 MOKEAU	-0.21272 0.60927 18422 BJVILLE SD0 18430 BDAVILSO SUU I	- 42491 26851 10CHIJEV 138 26879	- 31221 MOBERLY	-0,15936 -0,37320 18692 SE BOWL 161 18926 SABERD T 161 1	MOREAU 161 31240 MOREAU	-0.14738 0.43126 30957 LKSIDE 1 138 31024 MARIES 138 1	r 151 ATMINOUS CARRY ONS CITATIONS CARRY CORRY OF FRANK OF	CO. 35557 Indeed evenous 500 18468	11RLUE L 161 29248	0,37320 18012 SPARADIS 161 18926	0.60927 18422	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138	-0.15834 -0.37320 18692 5E BOWL 161 18926 5ABERD T 161 1	0.06855 -0.35537 18468 8VOLUNTE 500 18469 SVOLUNTE 161 1	0.75412 18464	- 27019 11BLUE L 161 29248 20BLIT C 161	0.56875 27156 11WC-DD 138 27295	0.16506 0.37320 18012 SPARADIS 161 18926 SABERU 1 161 1	100000 17180 11CANAL 60 0 27260 11EALG 69.0	11CANAL 69.0 27260		-0.35537 18468	0,75412 18464 BBULL RU 500 18468		1.00000 24586	SPARADIS 161	-0.32916 27012	-0.32916 27006	-0.02453 -0.42491 26851 10CULLEY 138 26879 10GRNDVH 138 1	
-1749.4							* * * ***	- 3531.9					-187.9	0.8 R		347.3 *	368.3 *		472.7 R	261.7	5.993	630.6	709.0	721.7		* I./202-	2.60	370.7	573.7 R	602.0 R	634.7 *	-1190.4 *	-592.8	0.6 R	23.3	355.6 *	. B'809	710.9	:	-1027.1 •	-495.9 +	0.6 R	163.2 R	180.5 K	461.6	471.9 *	515.0 R	
750.0 -1	750.0			750.0			6		•				750.0	750.0	750.0					750.0		750.0	750.0	750.0			150.0	750.0	150.0		750.0	1- 0 020			750.0	0.027	750.0	750.0		750.0 -1	750.0	750.0	750.0	750.0	0.05/	750.0	750.0	
ALL_B	ALL_B	ALL_B	ALL B	ALL B	ALL	Writ "	4.	arcino TB	GROUP, 18	at attorn	GROUP 1B	GROUP 1B	GROUP_18	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP IB	GROUP 1B	GROUP_1B	GROUP_1B	-	GROUP_2B	GROUP_ZB	BZ_GDDGD	GROUP 2B	GROUP 2B	GROUP_2B	ar discon	de Josep	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	ac i none	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B	40000	
VNIT1_P61	UNITI_P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNITI_P61	UNITL P61		UNITI PEI	UNIT, PET	INIT'S BET	UNIT1 P61	UNIT: P61	UNIT1 P61	UNITLEP61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNIT1_P61	UNITI_P61	UNITI PEI	UNITL P61	UNITI_P61	JNITI_P61	į	UNITI_PGI	UNIT1_P61	UNITI P61	UNIT1 P61	UNIT1 P61	UNITI_P61		UNIT DE1	UNIT1 P61	UNITI_P61	UNIT1_P61	UNITI_P61	UNIT1_P61	UNITITED	UNIT1 P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNITI_P61	UNITI_P61	UNITI PET		

13.024	12.451	31.184	38.12	24.24	25.691	19.91	17.46%	496.0	9.87	15.604	4.864	58.121	50.701	8.184	25.374	1.956	17.334	-	12.544	3.178		6.011	14.104	1.461	4.741	1.334		8.854	33.49F	17.901	11.381	11.061	5.324	5.13%	5.134	4.611	2.01%	_	11.434	11.124	36.65	2.04	5.131	0.514	0.384	6.60%	14.084	3.684	1.664	1.544		-
8	6		£ 67.61				121.9 1					w	11.2 5			223.0	-		321.3 1				321.5			254.7		1196.4		122.8 1			108.3			108.0	308.9				237.6		.309.1	-255.1	-253.6	1170.7		-121.9	-256.1	-254.7		
. 6.662			141.4		•		'						-1.2	•		183.2			279.6	,		-	279.6			- 240.7		793.9		. 7.711.	279.6	-4.2	46.3	.106.5	106.5		- 236.9	1.60			237.6	163.3	-236.9	-242.4	-240.7	1264.6						
0.03489	-			0.03954			•	0.01786	- 0.05030	-0.05030	0.01786	-0.02618	0.02618	-0,06597	-0.02201	0.06813	-0.12320		0.10878	-0.13834			0.11587	-0.03248		-0.02248		0.01142		-0.02151	0.10463	-0.02114	0.23656	-0.09766	0.09766	0.03204	-0.10463	-0.07577			-0.02831	0.11811	-0.11811	-0.01826	-0.01826	0.03926	0.11583	-0.02610	-0.02301	-0.02301	-0.11583	
1132.6	1724.0	197.6	-164.2	2880.0	-71.8	222.9	-216.9	172.0	-307.3	-306.0	8.00	19.00	57.4	-216.0	-58.5	470.5	-58.5		445.9	1731.4	2.5	1724.0	445.9	-307.3	-445.0	-306.0		1132.6	176.0	-175.6	445.9	.142.1	242.2	142.2	224.0	142.5	-445.0	1731.4	1132.6	1724.0	239.9	645.9	0.244-	-307.3	-306.0	1724.0	445,9	-216.9	6.706.	-306.0	-445,0	
1214.2	1810.6	1.99.1	-169.2	-281.7	-74.7	232.0	-205.3	167.6	-287.2	-285.5	183 7	13.9	7.9	-184.2	-20.0	437.5	-344.5	!	387.2	1831.9		1810.6	347.2	-205.3	-344.5	-285.5		1214.2	188.6	-161.1	387.2	-122.3	5.76	100.0	156.9	6.99	-344.5	1831.9	1214.2	1810.6	239.9	387.2	1986.6	-287.2	-285.5	2 0101	387.2	-205.3	-287.2	-285.5	-344.5	
C:Open 18018 8PHIPP B 500 18468 8VOLUNTE 500 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	C:Open 27017 11ARNOLD 161 27023 11DELVIN 161 1	27110 11LR TAP 138 29387 20JKSMIT	C:Open 27105 11KENTON 138 29566 20SPURLK 138 2	C:Open 29108 COOKSMIT IST 29300 CUFOMEDE IST I	29386 20JKSMIT 161 29500 20POWELL	11101 8BAD CRK 500 11102 8JOCASSE	29432 20MAYSVJ 138 29566 20SPURLK	27099 11HARDEG 138 27100 11HARDN	27099 11HARDBG 138 27100 11HARDN	18012 SPARADIS 161	COOPER 29452 ZUMAKUNU 138 ZUSES ZUSEUKEN 138 I.	2005 OFFICE REF RELIEBR	11101 BBAD CRK 500 11102	23051 05FULLER 138 23173 05MILLBR	11BRWN N 345 27015 11W LEXN	C:Open 18012 SPARADIS 161 18691 580NL GR 161 1	1154 BL 14970350 TENET	18012 SPARADIS 161 18691 SBOWL GR	18425 BCUMBERL 500 18430 BDAVIDSO	CiOpen 18012 SPARADIS 161 18691 550ML GK 161 1	C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	18012 SPARADIS 161 18691 SBOWL GR	11101	Spanner 161 18691 SBOWL GR	27099 11HARDBG 138 Z7100 11HARDN		18018 SPHIPP B 500 1846B SVOLUNTE	18457 6WBNP 1 500 18468 6VOLUNIE 500	14HENDES 161 27617 14HENDE4 138	18012 SPARADIS 161 18691 SBOWL GR	25948 08GIBSON 345 26081	26861 10ABBRWN 138 27617 14HENDR4 138	18012 SPARADIS 161 27616 14N.HAR5	26851 10CULLEY 138 26879 10GRNDVW 138	SPARADIS 161 27616 14N.HAR5 161	18012 SPARADIS 161 18691 SBOWL GR	C:Open 18425 8CUMBERL 500 18430 8DAVIDSO 500 1	C:Open 18018 SPHIPP B 500 18468 SVOLUNTE 500 1	C:Open 18457 8MBNP 1 500 18468 8VOLUNTE 500 1	23248 OSWAGENH 138 23711 OSLIV 138	18012 SPARADIS 161 18691 SBOWL GR 161	27560 14HENDR5 161	18012 SPAKADIS 181 IBBS1 SBOWN GK 191	11HARDBG 138 27100 11HARDN 138		C:Open 18457 8WBNP 1 500 18468 8VOLUNTE 500 1	TOT 11102 BJOCRESE 500	27099 11HARDEG 138 27100 11HARDN 138	11HARDEG 138 27100 11HARDN	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	
THE COUNTY SALES WOLTHING SALES SUCITABLE OF THE SALES SUCITABLE SALES		11DELVIN	11DBLVIN 161	11KENTON 138 29566 208PURLK	-0.32954 27023 IIDBLVIN 161 27045 IIMI IAP 161 I	27034 11LR TAP 161 27045	SROBBINS 161 18040	11FLEMIN 138 27093 11GODDRD 138	27012 11SMITH 345 27142 11SMITH	11HARDN 345 27012	SPARADIS 161 18926 SABERD T 161		O DEPOTE OF D	SNANTAHA 161 11172 SROBBINS 161	05PLYM.G69.0 24091	-0.51651 27015 11H LEXN 345 27153 11H LEXN 138 1	SE BOWL 161	0.48510 24077 OSFRANKN69.0 Z4084 USFLYM.G69.0 I	18926	GUVILLE 500 18430 SDAVIDSO 500	-0.37320 18692 5E BOWL 161 18926 SABERD T 161 1	0.75412 18464 BBULL RU 500 18468 BVOLUNTE 500 1	SPARADIS 161 18926 SABERD T 161	SROBBINS 161 18040 SSANTEET 161	-0.32916 27012 118MITH 345 27142 118MITH 138 1	345 27012 11SHITH 345		8VOLUNTE 500 18469 SVOLUNTE	BBULL RU 500 18468 BVOLUNTE		18926 SABERD T	1 080KIND 138 27871 16PETE	10NEWTVL 161 27552 14COLE 5	11KNOB C 138 27135 11POND C	14HENDRS 161 27617 14HENDR4	0.35116 26861 10ABBRWN 138 27617 14HENDR4 138 1		8JVILLE 500 18430	1 191 STWILLOWS SABE ON THATTOWN SALES TORSE A	SHILL BU 500 18468 SVOLUNTE	11BLUE L 161 29248 20BLIT C	2 SPARADIS 161 18926 SABERD T 161	Y 138 26879 10GRNDVW	2 SE BONL 161 18926 SABERD T	-0.32916 27012 118MITH 345 27142 118MITH 150 I		BBULL RU 500 18468 BVOLUNTE	SPARADIS 161 18926 SABERD T	11172 SROBBINS 161 1804U SBANKEEL LEL L	345 27012 11SMITH	52 ROWL 161 18926 SABERD T	28 BOWL 151 10328 SABERT 1
- 62200		•				-0.07130	- 1							-0.06597 -	-0.07112			-0.07112	0.15283	-0.26041	-0.15283	. 0.02270	0.16211	1		-0.16211			0.08787	0.06179	-0.06124					0.10478	-0.14595			TREAD O	-0.02831 -	0.16444			-0.02867		0.03618	0.16198	1	0.03360		
2000 C *	- 507.4 *	17.9 R	45.3 R		87.78	127.8 R	176.3 *	188.2 *	296.7 *	303.3	343.2	347.1	425.2	473.1	541.0 •	585.4 *	587.6	607.3	384.0 •	386.1 R	. 5.7.5	-3815.1 *	362.1 *	373.3 *	611.9	619.9 *		-2002.5 *		-204.5 *	236.7		507.0	636.7 *	640.7 *	640.7	650.8	719.8 R		-12/8.8	-619.3	356.9	585.5 R	611.1 *	694.8 *	7.01/	-2393.8 *			6.965		4.000
A DIEST LOVE			750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0		750.0	0.057	750.0		750.0	750.0	750.0	750.0	0.067	750.0	750.0	750.0	750.0	750.0	750.0			750.0	750.0	750.0	750.0	750.0	2.00/	750.0	750.0	750.0	750.0	0.067	750 0
	GEOUP SE	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP 5B	GROUP_SB	GROUP_SB	GROUP 5B	GROUP_5B	GROUP_SB	GROUP_5B	GROUP SB	GROUP 58	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_6B	GROUP_6B	GROUP_6B	AL GINGS	GROUP 78	GROUP_7B	GROUP_7B	GROUP_7B	ar Tagosio	GROUP_6B	GROUP_BB	GROUP_8B	GROUP_BB	GROUP_BB	GROUP BB	GROUP_8B	GROUP_8B	GROUP_8B	GROUP_BB	GROUP_8B	ı	GROUP_NB	GROUP_NB	GROUP NB	GROUP NB	GROUP_NB	GROUP_NB	GROUP_NB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB	and the con-
Prom	UNIT DE	UNITI PEI	UNITI_P61	UNITI_P61	UNITI_P61	UNITI_F61	UNIT1 P61	UNITI_P61	UNITLEGI	UNITI_P61	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNITI P61	UNITI P61	UNITI_P61	UNIT1_P61	UNITI_P61	UNIT2_P61	UNIT1_P61	UNIT1_P61	196 TTM	UNITL P61	UNITI_P61	UNITI_P61	UNIT1_P61	ONTIT LAT	UNIT1 P61	UNITL_P61	UNITL_P61	UNIT1_P61	UNITL P61	UNITI_P61	UNIT1_P61	UNITI_P61	UNIT1_P61	UNITL P61	UNITI_P61	ı	UNIT1_P61	UNIT1_P61	UNIT1_P61	UNITL P61	UNITI_P61	UNIT1_P61	UNIT1_P61	UNIT1 P61	UNITI_P61	UNITL_P61	UNIT1_P61	UNIT1_P61	

Csse; 2004 WINTER PEAK ECAR BASE CASE W45P61_W; 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161 LF Case; W45P61_Waav; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL; PHC.EXC

Scenario 9

Csse: 2004 SUMMER PEAK ECAR BASE CASE W4SP61_S: 1500 MM SPLIT BETWEEN W1LSON 345 PARADISE 161 LF Case: W4SP61_S.sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

5P61.TRA	: :	
S+W4		
W45P61	PARADISE 161	
REPORT:	3001 20:57 *** CASE TWEEN WILSON 345 &	
FCITC MULTIPLE TRANSFER REPORT: W45P61 S+W45P61.TRA	MUST Titls: *** MUST 3.20 *** WED, JAN 10 1001 20:57 *** Titls: 2004 SUMPHER PEAK END REAR BASE CASE TITLS: *** WASPEL_S: 1500 MM SPAIT BETWEEN WILGON 345 & PARADISE 161 MONITOR File: C: SQU-SSERS/NORDON'THE, mon	Subsystem File: C:\BV-USERS\NOBODY\PHC.sub Exclude File: none
TIPLE	2004 ST 2004 ST W45P61_ C:\BV-USERS\P	C:\BV-USERS\R
MUI	Title: Title: Title: r File:	File:
FCITC 1	MUST 7	Subsystem File: C:\BY

53.891	39.78%	413 68	45.0	17.174	27.54	14.494	16.781	53.664	11.84%	11 224	22.70%	22,541	14.664	11.164	8.03	2.378	2.984	2.212	100		25.934	52.241	40.954	86.041	59.801	30.434	105.13%	160.99	103.944	40. 20	96.364	44.014	27.281	15.334	40.05	12.68	79.748	57.101	14.49\$	74.921	10.34	10.234	51.694	11.074	23.878	4.024	43.434	43.284	12.411	
249.2	-128.2	7.191	0 10		7.55	87.1	143.4	9.16-		9.945	369.9	-402.2	156.8	-152.3	121.6	-306.3	;	61.8	0 211-		-179.6	249.0	-128.2	9.797	-140.1	222.0				65.7	.50.3		-56.4	93.3	;	1.75	-89.7	9.06-	143.2	105.2	316.4		249.1	-128.2	161.3	-354.1	6.5.8	65.7	4.59	9.79.
279.7	-128.7	162.3	2.5		8.44	75.2	117.9	25.1	1.67	F: / C7	196.7	-216.3	112.9	-104.1	106.1	-216.8		34.6	9	P	-209.4	279.7	-128.7	162.5	-114.9	183.2	20.6	43.5	20.2	43.3	- 160.0	;	-18.8	95.6		33.1	-11.4	25.1	117.9	-31.9	257.4		7.672	-128.7	162.3	-360.5	43.5	6.69	92.6	-18.8
1000.0	0.02530	-0.02475	0.05112	0.05093	00.100	0.04103	07010	201010	-0.13196	0.06480	0 13177	0.27272	0.04122	-0.04122	0.01280	-0.06480		0.01878		-0.04794	-0.05619	0.06603	0.02686	-0.02633	-0.08744	0.07904	0.04642	0.04388	0.04548	0.04372	0.01254	36.00	-0.06184	0.01671	٠	0.03237	0.01323	-0,13424	0.02856	0.15075	0.06119		0.06490	0.02910	-0.02874	0.00997	0.03396	0.03384	0.01287	-0.04864
9.55	-176.0	175.5	116.7	116.7	157.8	157 8	2 7 7 7	0.601	-226.7	444.5	343.6	2.755	636.8	-264.3	265.0	-446.0	116.7	142.7	116.7	-181.6	-334.7	343.6	-176.0	175.5	-175.7	287.6	74.7	116.7	74.7	116.7	-461.0	6.49	-148.4	157.8	-175.7	83.5	157.8	-226.7	164.8	163.7	444.5	343.6	343.6	-176.0	175.5	-461.0	116.7	116.7	157.8	-148.4
	-176.9	9.941	17.1	77.0	139.6	136.4		130.2	-52.0	361.7	279.7	319.4	0.641	-150.3	175.8	321.1	43.5	71.2	63.3	-86.1	-357.3	386.1	-176.9	_	150.8	245.0	35.0	17.11	34.8	0.77	-475.1	41.2	-121.0	139.6	-114.9	50.9	136.4	152.0	130.2	-25.2	361.7	279.7	386.1	-176.9	176.6	-475.1	17.77	0.77	139.6	-121.0
	G:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	138	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	161 27095	27126 110HIG C 138	26851 10CULLSY 138 26879 10GRNDVW 138	138 27126 110HIO C 138	14NILSO7 345 27563 14COLB 7 345	11GR RV 161 27553 14WILSOS 161	C:Open 18012 SPARADIS 161 18691 5BOWL GR 161 1	;	11GR RV 161 27553 14WILSOS	C:Open 27561 14MILSO7 345 27563 14COLE 7 345 1	C:Open 2/028 110K RV 181 4/253 14MITGOS 181 1	14WILSO7 345 27563	C:Open 18012 SPARADIS 161 18691 SHOWL GR 161 1	Base Case	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	Buse Case	C:Open 27561 14HIL807 345 27563 14COLE 7 345 1	C:Onen 96150 2MCCRED 345 96162 7THOMHL 345 1	161	C:Open 27560 14HENDRS 161 27617 14HENDR4 138 1	10CULLEY 138 26875 10ANGMND 138 1	GUTHRIE 161 30805 JC FAIR 69.0	BLAND	145 96354 SIRMALE	161 27095	MOBERLY 161		C:Open 18698 SDAVSN 2 161 18740 SDAVBNRD 161 1	C:Open 31609 RIVMIN 1 138 31933 WALLEN 1 138 1	Base Case		2000	C:Open 30677 GUTHRIE 161 31239 MOREAU 161 1	VR 138 27126	C:Open 30532 ELDON 161 96168 5BARNET 161 1	C:Open 27028 119K RV Ibi 27553 14M15503 10t 1	C.Open 2/361 Lantaso, 345 2/362 2/362 136 1	C.Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	Dang Choe	1 134 T Adding Senses 150 assessment	C:Open 18012 SPARADIS 161 18926 SABERU 1 Lei I	27560 14RENDRS 161 2761/ 14RENDR4	SDAVSNRD	C.Open 27028 11GR RV 161 27095 11GR RVR 138 1		27095 11GR RVR 138 27126 11OHIO C	
	0.04727 0.40677 26855 10NEWTVL 138 26879 10GRNDVW 138 1	-0.02524 0.16225 26851 10CULLEY 138 26879 10GRNDVM 138 1	RV 161 27095 11GR RVR	0.77439 27028 11GR RV 161	0.75819 27095	-0.62960 26855 10NEWTVL 138 26857 10NEWTVL	0.74075 27095	0.06288 27126 110HIO C 138 27141 115HREMS	10NEWTVL 161 27552	0,37321 18012 SPARADIS 161	SPARADIS 161 18691 SBOWL GR	-0.56714 27561 14WILSO7 345	-0.42017 27028 11GR RV 161 27553	-0.25946 27552 14COLE 5 161	-0.08899	0.37321 18692 SR BOWL 161	27028 11GR RV 161 27095	0.04977 -0,16837 26855 10NEWTVL 138 27079 11CLVRPR 138 1	27028	0.06499 -0.09930 27025 11EARL N 161 27042 11RQ TAP 161 1	[15] JIMMITA APROPORTA VIGOROMA PROPERTY AND APPLICATION OF THE PROPERTY OF T	SPARADIS 161 18691 SBOWL GR	0.40677 26855 10NEWTVL 138 26879	0.16225 26851	0.39884 31239 MOREAU 161 31240 MOREAU	-0,06663 30233 CALIF 161 31409 OVERTON	0.22078 31408 OVERTON 345	0.71235 31221 MOBEREX 161 31222	MOBERLY 161 31222	0.77439 27028 11GR RV 161	-0.40803 18720 SRADNOR 161 19070	-0.65393 31024 MARIES 138 96292 SMARIES	- 31239 MOREAU 161		0.75619 2/055 1108 RVR 150 2/120	APCH FLT 161 30027	0.74075 27095	LKSIDE 1 138 31024	0.35636 26857	0.06288 27126 110HIO C	-0.58645 30532 ELDON 161 31400 CSASE 133			0.41330 18012 SPARADIS 161 18691	0.40677 26855 10NEWIVE 138 26879	0.16225 26851 10CULLEY 138	•	161 27095 11GR RVR 138	0.75819 27095 11GR RVR 138	CT WAY YOUT COURT CIRCL'D
1500.0 -447.1 * 0.		42.1 R -0.	436.7 + 0.							916.7 * 0.	934.8 0.	•	•		1168.6 * -0.							•	œ	٠				•	508.7 • 0.		œ			•		739.1		806.6 + -0.	•			964.4 • 0.		.471.9 * 0.		·	~			
1500.0 -44		1500.0	1500.0 43	1500.0 43				1500.0 83	1500.0 88	1500.0	1500.0 93				1500.0 110					1500.0 14		1500.0			1500.0	1500.0 2			1500.0				1500.0			1500.0			1500.0				0.0051	1500.0 -4		•				1500.0
ALL_B	ALL	ALL_B	ACC_B	ALL_B	ALL B	ALL B	ALL B	ALL_B	ALL B	ALL. B	ALL_B	ALL_B	ALT_B		ALL_B	Act B	ALL B	ALL B	ALL B	ALL B	-	GROUP_1B	GROOF IB	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	GKOUP_IE	GROUP 18	GROUP_18	GROUP_1B	GROUP_1B	GROUP_1B	GROUP_1B	BL GROWE	GROUP 1B	GROUP_1B	GROUP_1B	GROUP_1B	GROUP 1B	GROUP_1B	GROUP_2B	GROUP_2B	GROUP_ZB	GROUP_2B		GROUP_2B	GROUP_2B
P61	P61	1961	P61	194	194	P61	194	P61	P61	194	P61	194	194	1961	P61	1961	1941	. P61	2561	1941		5961	5051	5961	5961	SP61	5P61	5P61	5961	5P61	1945	SP61	5P61	1945	SP61	5P61	Spei	5961	5961	5261	SP61	SP61	5961	5 2 6 1	5961	SP61	5961	5961	5961	5961

Case: 2004 SUMMER PEAK ECAR BASE CASE
W48F61_S: 1500 MW SPLIT BETWEEN W1LSON 345 PARADISE 161
LF Case: W45F61_S.sav; MON: PHC.mon; SUBSYST; PHC.sub; CONT; PHC.con; EXCL: PHC.EXC

1-75 1-75 1-75

186.0 186.	
186.0 186.	The color of the
1860 1862	1865 1865
1860 1861 1862	1860 1861 1862
1800.0 1812.0 1	150.00 151.00 1
1500.0 179.5 1500.0 179.5 1500.0 179.5 1500.0 179.5 1500.0 179.5	Color Colo
1500.0 1135.8 15.00.0	Color Colo
	droup_28 droup_28 droup_28 droup_28 droup_28 droup_28 droup_28 droup_28 droup_38 droup_58
	GROUP_28 GROUP_28 GROUP_28 GROUP_28 GROUP_28 GROUP_28 GROUP_38 GROUP_48 GROUP_58

Case; 2004 SUMMER PEAK ECAR BASE CASE	W45P61_S: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161	LF Case: W45P61 S.sav: MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC
Case: 200	W45P61	LF Case:

Constant

: 1

2002 DGGER 138 1 -122.5 -141.5 -0.0139 - 2752.1 RELD 7.451 1.20.1 -223.5 -0.05569 - 27552.1 RELD 7.351 1.20.1 223.6 0.05664 - 27552.1 RCLD 7.351 1.20.1 223.6 0.05664 - 27552.1 RCLD 7.351 1.10.1 7.6 24.3 0.07531	264.3 0.12251 76.6 597.9 0.16042 196.7 262.3 0.02656 73.4	44.5 0.05190 257.4 343.6 0.31592 6.2	0.10148	-0.10148 20.6	1 11	0.06840 279.7 249.2 0.02601 -128.7 -128.2	162.3	43.5		75.2 87.1	_	25.1 -92.5		196.7 371. 216.3 -400.	-		•	3 -306.		-108.2	60.	249.0	161.2	65.8	. 66	-54.7	-355.	143.9	-104.2	-104.3	316.		-93.0		'	.155.			-141.0
2608 0818 1 125. 141.5 - 0.0138 2752 148ED 7 345 1 120.1 223.6 0.05504 27552 148ED 7 345 1 120.1 223.6 0.05504 27552 148ED 7 345 1 35.6 148.4 0.07448 27552 148ED 7 35.6 24.3 0.12551	264.3 597.9 262.3	343.6 597.8	0.10148		-0.15796										Ξ	- 5	.104.1	-216.		-43.1	34.8	279.7	162.3	43.5	82.6	-18.8	-360.5	117.9	-76.2	-76.2	257.4		-88.8	112.9	-216.3	196.7	2	106.1	9.99-
25681 0861B 138 1 -122.5 - 27562 14REID 7345 1 -120.1 - 27562 14REID 7345 1 120.1 120.1 75561 4600.8 7345 1 55.8			264:8			6 6	-0.02545	0.05283	0.01755	-0.06077	0.03013	-0.13223		0.17329	0.03817	0,00914	-0.03817	-0.06550		-0.04358	0.01737	0.06815	-0.02318	0.04722	0.01881	-0.06211	0,00760	0.01714	-0.03419	-0,03411	0.06333	;	-0.05301	0.04853	-0.19339	0.16820	-0.03681	0.01235	-0.05916
27562 10861B 138 11 27562 148ED 7 345 11 27562 14REID 7 345 1 1 1 27563 14COLE 7 345 1	76.6 200.7 76.1	361.7 279.7 120.3		-255.4	-419.9	343.6	175.5	116.7	157.8	-148.4	164.8	-226.7	343.6	597.9	263.8	265.0	-264.3	116.7	116.7	-224.0	142.7	343.6	175.5	116.7	157.8	-148.4	-461.0	157.8	-154.0	-154.1	444.5	343.6	-163.0	263.8	-557.7	597.9	-264.3	265.0	-181.6
26081 08GIB 138 27562 14REID 7 345 27562 14REID 7 345 27563 14COLR 7 345			26.9	18,7	v. r.	386.1	176.6	77.1	139.6	-121.0	130.2	-52.0	279.7	319.4	169.0	120.1	-160.3	-321.1	43.3	-45.0	71.2	386.1	176.6	1.77	139.6	-121.0	-475.1	136.4	-112.6	-112.6	-52.0	279.7	-74.4	169.0	-299.0	319.4	-160.3	H	-86.1
25948 08GIBSON 27561 14MILSO7 27561 14WILSO7 27561 14WILSO7	27561 14WILSO7 345 27561 14WILSO7 345 27561 14WILSO7 345	27551 14MILSO/ 343 2793 247517 7 18012 5PARADIS 161 18691 5BOWL GR 66 27561 14WILSO7 345 27563 14COLE 7	27561 14WILSO7 345 27562 26170 06AMO 345 26186	27561 14MILSO7 345 27562 14REID 7 27561 14WILSO7 345 27562 14REID 7	C:Open 2751 14REID 5 161 27562 14REID 7 346 1 C:Open 27551 14REID 5 161 27562 14REID 7 345 2	18012	27560 14HENDES 161 2761/ 14HENDER 130 26851 10CULLEY 138 26875 10ANGMUD 138	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161 27095 11GR RVR 138 2	27095 11GR RVR 138 27126 11OHIO C 138	C:Open 26851 10CULLEY 138 26879 10GRNDVW 138 1	110k KVK 138 2/126 110410 C 130 14W1LSO7 345 27563 14COLE 7 345	11GR RV 161 27553		C:Open 27028 11dR RV 161 27553 14WILBOS 161 1	LIGR RV 161 27553 14WILSOS 161	C:Open 26013 080RNIWN 138 26110 08MIER 138 1	11GR RV 161 27553 14WILSOS	C:Open 18012 SPARADIS 161 18691 SBOWL GR 161 1	trace case Block Case	C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	27028 11GR RV 161 27553 14HILBOS 161	18012 SPARADIS 161 18926 SABERD T 161	C:Open 27560 14HENDR5 161 27617 14HENDR4 138 1 C:Open 26851 10CULLEY 138 26875 10ANGMND 138 1	27028 11GR RV 161 27095 11GR RVR 138	C:Open 27028 11GR RV 151 27095 11GR KVK 138 2 C:Open 27095 11GR RVR 138 27126 11OHIO C 138 2	26851 10CULLEY 138 26879 10GRNDVW 138	C:Open 11087 BADIN 100 11192 ALBEMAKL 100 1 C:Open 18698 SDAVSN 2 161 18740 SDAVSNRD 161 1	27095	27563 14CULB / 11291 OAKBORO	11192 ALBEMARL 100 11291 OAKBORO	C:Open 27028 11GR RV 161 27553 14HILSOS 161 1	TOTAL TRACTICAL PROPERTY.	n 11087 BADIN 100 11192 ALBEMARL	C:Open 11101 8BAD CRK 500 11102 8JOCASSE 500 1	11GK KV 161 2/253 14CLE 7	27028 11GR RV 161 27553 14WILSOS	27028 11GR RV 161 27553 14WIL905 161 1	345 1	27561 14WILSO7
-0.65625 25078 0BOKTAD 138 27971 168ETE 138 -0.26552 27560 14HENDRS 151 27617 14HENDR8 139 0.26552 26661 10ABRHN 138 27617 14HENDR8 138 0.27779 26655 10ABRHYL 138 26677 10MENTYL 151	- 18012 SPARADIS 161 27616 14N.HAR5 161 0.64389 27561 14HILSO7 345 27563 14COLE 7 345 0.43359 27552 14COLE 5 161 27557 14HANCOS 161	0.43359 27552 14COLE 5 161 27557 14HANCOS 161 0.37321 18012 SPARADIS 161 18926 5ABERD T 161 - 18012 SPARADIS 161 18691 SBOWL OR 161 0.57981 27561 14811507 345 27562 14RE1D 7 345	0.30117 18026 SBARKLEY 151 27519 14HOPCOS 161 0.03478 26079 08PRNCTN 138 26081 0801B 138	-0.26525 27551 14REID 5 161 27560 14HENDR5 -0.30117 27551 14REID 5 161 27619 14HOPCO5	0.75336 27551 14REID 5 161 27562 14REID 7 345 2 0.75336 27551 14REID 5 161 27562 14REID 7 345 1	0.41330 18012 SPARADIS 161 18691 SBOWL GR	0.40677 26855 10NEWTVL 138 26879 10GRNDVM 138 1 0.16225 26851 10CULLEY 138 26879 10GRNDVW 138 1	0.77504 27028 1	0.77439 27028 11GR RV 161 27095 11GK KVK 0.75819 27095 11GR RVR 138 27126 11OHIO C	-0.62960 26855 10NEWTVL 138 26857 10NEWTVL 161	0.74075 27095 11GR RVR 138 27126 110HIO C 138 2	0.35636 26857 IQNEWTVL 161 27552 14COLE 5	- 1	-0.56714 27561 14WILSO7 345 27563 14COLE 7	-0.42017 27028 11GR RV 161 27553 14WILSOS 161 1	0.76899 23464 05HUNT J 138 26018 08HNTNGT	0.35439 27551 14REID 5 161 27559 0.25946 27558 149KILMS 161 27564	-0.37321 18692 5E BOWL 161 18926 SABERD T	1 - 27028 11GR RV 161 27095 11GR RVR 138 2 1 - 27028 11GR RV 161 27095 11GR RVR 138 1		-0.16837 26855 10NEWTVL 138 27079 11CLVRPR	0.41330 18012 SPARADIS 161 18691 SBOWL GR	7 0.40677 26855 10NGWTVL 138 26879 10GRNDVW 138 1	0.77504 27028 11GR RV 161 27095	2 0.77439 27028 11GR RV 161 27095 11GR RVR 138 1	-0.62960 26855 10NEWTVL 138 26857 10NEWTVL	5 0.75158 11087 BADIN 100 11192 ALBEMARE 100 2	0.74075 27095 11GR RVR 138 27126 11OHIO C		0.4772 11192 ALBEMARL 100 11291 CAKBORO	0.35636 26857 10NEWTVL 161 27552 14COLE 5	6 0.37221 18012 SPARADIS 161 18926 SABERD T 161 1 5 - 18012 SPARADIS 161 18691 SBOWL GR 161 1	0.75158 11087 BADIN 100 11192 ALBENARL	11172 SROBBINS 161 18040 5SANTEET	-0.25946 27552	-0.42017 27028 116K KV 151 27555 148112505 -0.56714 27561 14WILSO7 345 27563 14COLE 7	0.25946 27558 148KILMS 161 27564 14NATAL5	1 -0.50003 11254 RIAG SPG 100 11267 LINDENST 100 1	OFF CORE CARE IN IN TAXABLE STATE COLUMN TAXABLE CO
-0.02664 -0.13984 0.13984 0.12104	0.15384	0.16354 0.07240 0.05493	0.19663	-0.13984	-0.27696		0.04837		0.09354	-0.04475	0.02899	٠	0.09103	0.27555	-0.25311	0.02015	0.07445	-0.09103	0.05283	-0.12293	0.04773	0.09432	0.04487		0.08362	•	-0.09285		* 0.04304	-0.05043	'	0.08876	0.06815			0.26406		19-19-19-19-19-19-19-19-19-19-19-19-19-1	0.07195
		1138.6			1496.5	ï	18.5 R 41.0 R		423.9	613.9	740.3 *	889.4	909.4	-	1022.0		1198.7		1393.5		1492.3	-450.7	19.9 R	472.7	474.2 *	578.1		6.069	802.9	823.3	869.7	932.6	937.0	954.5	960.4	979.6	1053.5	1233.5	1240.3
		GROUP_8B 1500.0 GROUP_8B 1500.0 GROUP_8B 1500.0			GROUP_8B 1500.0 GROUP_8B 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0		GROUP_NB 1500.0	GROUP SB 1500.0	GROUP_SB 1500.0	GROUP_SB 1500.0		GROUP_SB 1500.0	SB	GROUP_SB 1500.0	8S	GROUP_SB 1500.0	8. 8 .		GROUP_SB 1500.0			GROUP_SB 1500.0	GROUP SB 1500.0	-8s	GROUP_SB 1500.0

445P61 W45P61

ر الرابع المحافظة

Control of the

E	
1,37 1,37	
###### \$# 02 -32.2 1,374 1,09%	
-16.9	
18	
164.8 - 0.01066	
-112.7 -112.7 164.8	
-80.4 117.9	
1 345 1	
1 11PINEV	
Gebrui 27002 11ALCALD 345 27011 11PINEVI 345 1	
11ALCALD	
C:Open 27002 Base Case	
161 1	
LEY EWS	
COMMITMENT 027 IIFARLEY 141 IISHREWS	
Minteling Conscision MO 161 27027 ILFARLEY C 138 27141 ILSHREMS	
THE CHARTEN SETTING SETTING STATES IN THE STATES SET SET SETTING SETTI	
11ARTE	
11ARTE	
11ARTE	
11ARTE	
1.00E 1.00E	
Transactor Tra	
11ARTE	
Transactor Tra	

Case: 2004 WINTER PEAK ECAR BASE CASE
W4SP61_W: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161
LF Case: W4SP61_W sew; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL; PHC.EXC

W45P61 W+W45P61.TRA FCITC MULTIPLE TRANSFER REPORT:

MUST Title	MUST I££1a: *** MUST 3.20 *** THU, JAN 11 2001 13:48 ***
Title1:	2004 WINTER PEAK SCAR BASE CASE
Title2:	H45P61_H: 1500 MW SPLIT BETWEEN HILSON 345 & PARADISE 161
Monitor File	Monitor File: C:\BV-USERS\NOBODY\PHC.mon
Contingency File	Contingency File: C:\BV-USERS\NOBODY\PHC.con
Subsystem File	Subsystem File: C:\BV-USERS\NOBODY\PHC.sub
Exclude File: none	: none

	-0.2	Layette	A PERTO E	100 m	A A DEST ASSESSMENT OF THE SECOND CONSTRUCTION OF A COMMAND OF THE SECOND DESCRIPTION OF THE SECOND	and and and a	1214.2	1112 6	0.00612	793.9	775.1	10.72
	ALL	1500.0	-3077.4	0.02652	-0.3553/ IR466 BVOLONIE SUU IR469 SVOLUNIE ISI I	SOO IR468 SVOLUNTE 500 1	1810.6	1724.0	0.05144	1264.6	1191.1	10.291
	PLT. 9		13.78	-0.02020	0.01548 27019 11BEUE L 161 29248 20BEIT C 161 1 C:Open 18026 5BARKEEY		240.2	239.9	-0.01934	237.6	237.3	12.51
	Att B	1500.0	90.1	0.08694	0.77495 27028 11GR RV 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV 161	5 110R RVR 138 1	124.3	132.2	0.04906	70.2	74.6	92,67
	ALL_B	1500.0	91.6 *	0.08687	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161	27095 11GR RVR 138 2	124.2	132.2	0.04888	6.69	74.4	92.52
	ALL_B	1500.0	234.2 +	0.03004	0.75817 27095 11GR RVR 138 27126 11OHIO C 138 1 C:Open 27095 11GR RVR 138	27126 110HIO C 138 2	164.8	171.8	0.01776	97.5	136 8	432 FF
	ALL_B	1500.0	263.8 R	-0.04789	-0,42491 26851 10CULLEY 138 26879 10GRNDVM 138 1 C:Open 27560 14HKNDK5 161	27617 14HENDR4 138 1	.287.2	-307.3	-0.05432	-242.4		26.651
	ALL B	1500.0	30.05	-0.06799	-0.32916 27006 11HARDN 345 27012 119MITH 345 1 C:00en 27099 11HARDBG 138		-285.5	-306.0	-0.05432	-240.7		26.63₺
	ALL B	1500.0	370.5	0.02935	0.74073 27095 11GR RVR 138 27126 11OHIO C 138 2 C:Open 27095 11GR RVR 138		161.0	171.9	0.01619	8.8	94.8	19.27
	ALL. B	1500.0	652.3 *.	86680.0	0.37320 18012 SPARADIS 161 18926 SABERD T 161 1 C:Open 18012 SPARADIS	1 SBOWL GR 161 1	387.2	445.9	0.06454	279.6	321.7	17.10\$
	ALL_B	1500.0	960.3 *	-0.25399	-0.42013 27028 11GR RV 161 27553 14NILSOS 161 1 C:Open 27561 14WILSO7		-313.5	-557.4	-0.18155	-235.1		24.594
	ALL_B	1500.0	1009.6	0.27537	-0.56709 27561 14WILSO7 345 27563 14COLE 7 345 1 C:Open 27028 11GR RV 161	27553 14WILSO5 161 1	319.8	8.765	0.17242	186.5	360.6	466.22
-	ALL_B	1500.0	1040.7 *	-0.19673	0.35634 26857 10NEWTVL 161 27552 14COLE 5 161 1 C:Open 27028 11GR RV 161		-37.5	-242.2	-0.13204		7.76	24.77
	ALL B	1500.0	1086.3 *	-0.10114	0.22051 26855 10NEWIVE 138 26857 10NEWIVE 161 1 C:Open 27028 11GK RV 161	2/553 14WILSOS IEL 1 18691 580WI GB 161 1	2.00	-445.0	-0.06454	-236.9	0.606.	7.75
	ALL B	1500.0	1116.8	86690.0-	-0.3/32 1869 2 BOWL to loaded State 1 tol 1 Cooper Loads		-242.4	-307.3				5.401
	ALI. B	1500.0	1202.6	-0.05432	- 27006 11HARDN 345 27012 11SMITH 345 1		-240.7	-306.0				5.294
	Att B	1500.0	1204.9 *	0.04909	-0,16831 26855 10NEWTVL 138 27079 11CLVRPR 138 1 C:Open 27028 11GR RV	161 27553 14WILSOS 161 1	83.1	142.2	0.01854	43.5	8.59	10.22
	ALL B	1500.0	1263.8	0.04906	- 27028 11GR RV 161 27095 11GR RVR 138 2 Bage Case		70.2	132.2				8.77
	ALL B	1500.0	1274.3	0.04888	- 27028 11GR RV 161		6.69	132.2				B.34
	ALL: B	1500.0	1335.2 •	-0.08517	0.13262, 27099 11HARDBG 138 27615 14N.HAR4 138 1 G:Open 27028 11GR RV	161 27553 14WILSOS 161 1	-110.1	-223.9	-0.06110	0.64-	160.5	6.234
	ALL B	1500.0	1344.4 *	-0.11687	0.18650 27615 14N.HAR4 138 27616 14N.HAR5 161 1 C:Open 27028 11GR RV	161 27553 14WILSOS 161 1	-66.8	-223.9	-0.08301	-22.9	134.5	13.6
	ALL_B	1500.0	1419.2	0.05684	-0.2821/ 27099 LIHAKUBG 158 2/100 LIHAKUM 158 L CIUPEL KIVIK LESHIRIN					,		;
	GROUP_1B	1500.0	-485.2 *	-0.04118	0,38383 31221 MOBERLY 161 96354 STHMHIL 161 1 C:Open 96150 7MCCRED 345		-354.7	-334.7	-0.05328	-222.1	196.3	30.284
	GROUP_18	1500.0	-417.0 *	-0.04524	0,95083 30593 FRKN 138 30650 GRAY SUM 138 1 C:Open 30593 FRKN 138		-305.0	-286.2	-0.02319	156.4	146.7	30.28%
	GROUP_1B	1500.0	-417.0	-0.04524	0.95083 30593 FRKN 138 30650 GRAY SUM 138 2 C:Open	O GRAY SUM 138 I	0.60	1.52	0.04073	52.1		156.341
	GROUP_1B	1500.0	-194.6 *	0.06917	0,71268 31221 MOBERLY 161 31222 MOBERLY 69.0 2 C:Open 31221 MOBERLY 161	MORRETY 69.0	87.9	75.0	0,03991	51.0		154.72
	GROUP_1B	1500.0	188.2 *	0.06876	0,70850 31221 MOBSKEY 161 31222 MOBSKEY 99.0 1 C.Open Sizii Mosskoi tot	11TIPTOP 138	240.6	239.9	-0.01693	237.6	237.0	12.36
	GROUP_1B	1500.0	34.1.8	0.02024	-0.0/626 2/019 IIBLOG I 161 27095 11GR RVR 138 2 C:Open 27028 11GR RV	161 27095 11GR RVR 138 1	124.3	132.2	0.04403	70.2	9.4.6	82.55
	GROUP, IB	0.0051	100.1	0.07795	0.77429 27028 11GR RV 161 27095 11GR RVR 138 1 C:Open 27028 11GR RV 161	27095 11GR RVR 138 2	124.2	132.2	0.04386	6.69	74.4	162.391
	GROUP 18	1500.0	248.2	0.02834	0,75817 27095 11GR RVR 138 27126 11OHIO C 138 1 C.Open	6 110HIO C 138 2	164.8	171.8	0.01676	5 . 76	101.6	20.67
	GROUP 1B	1500.0	257.5 R	-0.04907	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1 C:Open 27560 14HENDRS 161	27617 14HENDR4 138 1	188.6	176.0	-0.02629	143.3	136.6	34.664
	GROUP 1B	1500.0	314.7 •	-0.06372	-0.32916 27012 11SMITH 345 27142 11SMITH 138 1 C:Open 27099 11HARDBG 138		-287.2	-307.3	-0.05133	-242.4	257.3	24.54
	GROUP_1B	1500.0	321.7 *	-0.06372	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1 C:Open 27099 11HARDBG 138	27100 11KARDN 138 1	6.585.	2 8 5 1	-0.07977	-25.4		111.98
	GROUP_1B	1500.0	334.0	-0.09191	-0.65304 31024 MARIES 138 96292 SMARIES 161 1 C:Open 31609 KIVMIN 1 138	A STUMMIT, 161 1	4.652	289.9	0.08116	188.6	216.7	35.07
	GROUP 1B	1500.0	346.6	0.08812	0.22068 31408 OVERTON 345 31409 OVERTON 151 1 C.Open 2012 10000 2000 2000 2000 2000 2000 20		161.0	171.9	0.01527	88.8		17.81
	GROUP_1B	1500.0	420.7	80.70.0	0.39921 31239 MOREAU 161 31240 MOREAU 69.0 1 C:Open 30677 GUTHRIB 161	30805 JC FAIR 69.0 99	49.5	63.9	0.06380	38.8	66.2	102.35%
	GROUP 18	1500.0	562.6	0.04073	. 31221 MOBERLY 161 31222 MOBERLY 69.0 2 Base Case		52.1	75.0	•			30.931
	GROUP 1B	1500.0	723.2 *	-0.14707	0.43126 30957 LKSIDE 1 138 31024 MARIES 138 1 C:Open 30532 BLDON	-	-36.6	-143.0	-0.09035			48.34
W45P61	GROUP_1B	1500.0	862.3 *	0.06357	0.29119 30026 APCH FLT 161 30027 APCH FLT69.0 1 C:Open 30677 GUTHRIE 161	9 MOREAU 161 1	29.1	83.9	-0.19229	-235.1	-414.1	26.761
	GROUP_1B	1500.0	930.8 +	-0.26203	-0.42013 27028 11GR RV 161 27553 14WILSOS 161 1 C:Open 27561 14WILSO7 345	ה ה ה		181.1	0.13152	-7.2	115.9	57.51
	GROUP_1B	1500.0	935.7 *	0.18450	-0.58636 30532 ELDON 161 31400 OSAGE 138 1 C:Open 30957	_	-118.1	-243.0	-0.08504	-119.9	-207.5	23.394
W45P61	GROUP_1B	1500.0	1030.2	-0.12116	0.42842 30233 CALIF 161 31409 OVERTON 161 1 C:Open 96468 355ARNES 101	SBARNET	-16.7	142.9	0.08975	-26.5	71.5	41.624
	GROUP_1B	1500.0	1092.2 *	0.14605	-0.42841 30997 incords X 136 31515 PLP6 N 138 1 C:Open 30532 BLDON 161	8 SBARNET 161 1	31.4	105.8	0.03922	7.72	76.1	15.261
	GROUP_18	1500.0	1285.9	0.12603	0.50760 30266 CAMPBELL 138 31273 MSD 138 1	MAD IND	124.0	286.1	0.08578	94,6	194.9	9.424
M45P61	GROUP 18	1500.0	1323.3 *	-0.18450	0.58636 30532 ELDON 161 96168 SBARNET 161 1 C:Open 30957 LKSIDE 1 138	MARIES	-38.6	-282.8	-0.13152	-23.0	0.16T-	#FC 9
	GROUP 1B	1500.0	1368.5 *	-0,08001	-0.42290 26855 10NEWTVL 138 26857 10NEWTVĽ 161 1 C:Open 27552 14COLE 5 161	14NATAL5	-59.3	-168.8	-0.06191	1.7.	-140.5	7.13
	GROUP 1B	1500.0	1390.8	-0.15812	-0.55571 26857 10NEWIVL 161 27552 14COLE 5 161 1 C:Open 27552 14COLE 5 161	27564 14NATAL5 161 1	-22.3	-242.2	-0.13433	î.		•
	٠,					B SVOLUNTE 500 1	1810.6	1724.0	0.03857	1264.6	1192.8	9.07
W45P61	GROUP_2B			0.04652	0.75412 18464 8BULL RU 500 18468 8VOLUNIE 500 1 C:Upen	4 11TIPTOP 138 1	240.6	239.9	-0.01820	237.6	237.0	12.761
	GROUP 2B	1500.0	33.7	-0.02087	-0.07826 27019 11800E D 161 29246 205411 C 161 1						,	60.411
						5 11GR RVR 138 1	124.3	132.2	0.03302	70.2	4.6	

Carry County

:

34.44	17 064	17.001	11.624	15.36%	3.224	15.694	12.27		3.654		13.62%	13.97	28.101	105.154	104.984	17.404	22.564	19.44	14.634	17.63%	164.01%	164.01%	18.581	8.27%	15.811	15.351	27.384	13.234	15.871	7.174	7.454	3.691	1.834	15.061	16.451	13.994	95.44%	50.931	50.614	37.474	33.431	33.44%	27.014	18.214	10.694	26.154	11.25	24.75%	30.524	9.864	13.101	10.421	10.84	
135.9	201.6	-257.2	94.6	321.6	173.4	377.6	3.395.2	9.005.	74.2		769.9	1197.6	72.5	74.6	74.4	101.6	137.1	-257.5	9.007	322.0	34.6	32.3	-402.5	-309.5				-142.6	-86.9	53.1	1.69.4	65.8	7.4	774.0	1197.0	237.6	74.4	41.2	35.8	136.9	-258.6	-257.3	8. 8	321.8	175.5	-408.3		362.1	-75.4	-309.2	67.2	133.0	-162.5	
143.3	5,7,5	-245.7	8.88	279.6	835.1	186.5	-235.1	6.962-	-7.1	!	793.9	1264.6	337.6	70.2	6.69	97.5	143.3	-242.4		279.6	-16.6	-15.4	235.1	-236.9				-22.9	46.3	12.9	-79.0	43.5	-37.9	793.9	1264.6	237.6	6.69	2.4	37.5	143.3	-242.4	-240.7	-36.7	279.6	159.7	-235.1	?	186.5	-7.1	-236.9	43.5	136.2	-79.0	
-0.02866	0.01246	-0.03892	0.01135	0.06068	-0.06394	0.17039	-0.13661	-0.06068	-0.04725		0.01424	6.07934	-0.02592	0.01584	0.05506	0.01454	0.01731	-0.04011	-0.04011	0.06612	0.07201	0.06708	-0.15894	-0.06612				-0.09484	-0.10545	0.03105	-0.04660	0.01615	0.03105	0.01444	0.10257	-0.02238	0.05033	-0.02012	-0.00929	0.02058	-0.06631	-0.06631	0.01258	0.06714	0.02497	-0.18440	91861.0-	0.17939	-0.06695	-0.06714	0.02078	0.04729	-0.06759	
176.0	171.6	6.706-	171.9	445.9	1731.4	597.6	-557.4	-445.0	-242.2		1132.6	1724.0	239.9	132.2	132.2	171.8	176.0	-307.3	-306.0	445.9	6.99	6.99	-557.4	597.8	132.2	132.2	6. 0 6. 0	-223.9	-242.2	168.8	-223.9	142.2	148.8	1132.6	1724.0	239.9	132.2	27.7	76.7	171.8	-307.3	-306.0	-189.3	445.9	210.8	-557.4	-242.2	597.8	-306.0	-445.0	142.2	285.3	132.2	6.622.
188.6	164.8	-287.2	6.682-	387.2	1831.9	319.8	-313.5	-344.5	S. 52.		1214.2	1810.6	239.9	124.3	124.2	164.8	188.6	-287.2	-285.5	387.2	+32.0	-32.0	-313.5	319.8	70.2	69.9	-16.6	6.61	-37.5	103.6	-110.1	63.1	52.8	1214.2	1810.6	239.9	124.2	82.0	82.0	164.8	-287.2	-285.5	-181.1	387.2	194.4	-313.5	-37.5	319.8	-240.7	-344.5	83.1	204.6	70.2	
27560 14HENDRS 161 27617 14HENDR4 138	11GR RVR 138 27126 11OHIO C	27099 11HARDBG 138 27100 11HARDN	C:Open 27099 IIHAKDBG 138 27100 IIHAKDN 138 I	18013 5PARADIS 161 18691 SBOWL GR	18425 SCUMBERL 500 18430	27028 11GR RV 161 27553 14WILSOS	27561 14WILGO7 345 27563 14COLE 7	18012 SPARADIS 161 18691 SBOWL GR	C:Open 27028 11GR RV 161 27553 14MILSOS 161 1	CCC17 TOT AN UST 07017	18018 SPHIPP B 500 18468 BVOLUNTE	18457 8WBNP I 500 18468 8VOLUNTE	23248 OSWAGENH 138 23711 OSLTV.	C:Open 27065 IIBKWN P 13H 27150 ILM CLIF 13B I	27028 11GR RV 161 27095 IIGR RVR	27095 11GR RVR 138 27126	27560 14HENDRS 161 27617 14HENDR4 138	27099 11HARDEG 138 27100 11HARDN 138	27099 11HARDBG 138 27100	2/126 110HIO C 138 18691 SBOWL GR 161	27180 11CANAL 69.0 27260	27180 11CANAL 69.0 27260	27561 14WILSO7 345 27563	C:Open 27028 11GR RV 161 27553 14MILSOS 161 1	TOOK TOT STOWNED	Base Case	Base Case	Base case C:Onen 27028 11GR RV 161 27553 14WILSOS 161 1	11GR RV 161 27553 14WILSOS 161	26013 08GRNTWN 138 26110 08MIER	27028 11GR RV 161 27553	C:Open 27028 ligk RV 161 27553 14W1LSOS 161 1	08GRNTWN 138 26110	C:Onen 18018 APHTPP B 500 18468 BVOLUNTE 500 1	SWENP 1 500 18468 SVOLUNTE	23248 OSWAGENH 138 23711	C:Open 27028 11GR RV 161 27095 11GR RVR 138 1	05RICHCT69.0 24690	24686 OSRICHCT69,0 24689 OSTREATY69.0	27095 11GR RVR 138 27126	C:Open 27560 14HENDRS 161 2761/ 14HENDR4 136 1	11HARDEG 138 27100 11HARDN	11SMITH 345 27142 11SMITH	C:Open 27095 11GR RVR 138 27126 11OHIO C 138 1	765 23190 05NPROCT	14WILSO7 345 27563	C:open 27028 11GR RV 161 27553 14MIL905 161 1			C:Open 27028 11GR RV 161 27553 14N1L505 161 1	11GR RV 161 27553 14NILSOS	C:Open 27012 11SMITH 345 27142 11SMITH 138 1	Base Case	20011274 61111 674
10CULLEY 138 26879 10GRNDVW	116R RVR 138 27126 110HIO C	119MITH 345 27142 11SMITH	-0.32916 27006 11HARDN 345 27012 11SMITH 345 1	SPARADIS 161 18926 SABERD T	BJVILLE SOO 18430 8DAVIDSO	14WILSO7 345 27563 14COLE 7	11GR RV 161 27553 14WILSOS	5E BOWL 161 18926 SABERD T	0.35634 26857 10NEWTVL 161 27552 14COLE 5 161 1	TONBUT TO TABLE	-0.35537 18468 8VOLUNTE 500 18469	8BULL RU 500 18468	27019 11BLUE L 161 29248	0.56875 27156	0.77499 27028 IIGK KV 181 27099 IIGK KVK 0 77429 27028 IIGK RV 161 27095 IIGK RVK	0.75817 27095 11GR RVR 138 27126 11OHIO C	-0.42491 26851 10CULLEY 138 26879 10GRNDVW 138 1	27012 118MITH 345 27142 118MITH	27006 11HARDN 345 27012	0,74073 27095 11GR RVR 138 27126 110HIO C 138 2	27180 11CANAL 69.0 27260	27180 11CANAL 69.0 27260	27028 11GR RV 161 27553 14WILSOS	14WILSO7 345 27563	-0.3/320 16692 SE BOML 161 18926 SAMERU 1 - 27028 11GR RV 161 27095 11GR RVR	- 27028 11GR RV 161 27095 11GR RVR	27180 11CANAL 69.0 27260 11FALLS	- 27180 ILCANAL 69.0 27260 ILFALLS 69.0 I	26857 10NEWTVL 161 27552	23464 OSHUNT J 138 26018 OBHNINGT	27099 11HARDBG 138 27615 14N.HAR4	0.22051 26855 10NEWTVL 138 26857 10NEWTVL 161 1	26018 08HNTNGT 138 26134	nes artestante estes treates	0.75412 18464 8BULL RU 500 18468	- 27019 11BLUE L 161 29248	0.77495 27028 1IGR RV 161	1.00000 24686 05RICHCT69.0 24689	1.00000 24686 USRICHCT69.0 24690	0.75817 27095 11GR RVR 138 27126		-0.32916 27012 ILSMITH 345 27012 ILSMITH -0.32916 27006 ILHARDN 345 27012 ILSMITH	0.59587 27079	0.74073 27095 11GR RVR 138 27126 110HIO C	0,37320 18012 5PARADIS 161 18926 5ABERD T 161 1	-0.42013 27028 11GR RV 161 27553 14WILSOS	0.35634 26857 10NEWIVE	-0.56709 27561 14WILSO7 345 27563 14COLE 7	27006 11HARDN 345 27012 11SMITH	0.22051 26855	-0.16831 26855 10NEWIVE 138 27079 11CLVRPR	-0.28217 27099 11HARDBG 138 27100 11HARDN	- 27028 11GR RV 161 27095	
-0.04881	0.02106	-0.04835	-0.04835	0.08480	-0.10420	0.24786	-0.20820	-0.08480	-0.14985	16.10.0-	0.04842	0.10278	-0.02592	0.02696	96760.0	0.02459	-0.03487	-0.05323	-0.05323	0.02403	0.13908	0.13908	-0.23165	0.26319	0.05527	0.05506	0.07201 -	0.06708	-0.16209	0.06582	-0.08725	-0.08165	0.06582		0.13134	-0.02238	0.08953	-0.02945	-0.02941	0.03480	-0.05236	-0.08188	-0.02693	0.03400	0.09327	-0.25976	-0.21387	0.28396	-0.06631	-0.10761	0.05182	0.06601	0.05052	
	334.0 •	414.8	424.1	692.1 *	965.0 R	1121.7 •		1185.0 •	1366.3 +	6.6147	-1685.2 +	-842.6 *	0.7 R	22.9	9. 5.	286.0 *	362.3 R	376.8	385.1 *	452.5 *	710.6	710.9	1052.9 *	1056.4 *	1121.9	1131.2	1158.7	1227.1	1263.1	1294.8 •	1303.4 *	1345.6 •	1458.9 *		-1375.7 •	0.8 R	97.5	89.08	180.5 R	202.1	241.3 R	245.0 *	304.5	319.7	629.2		957.3	978.5	985.2		1141.6	1222.2	1227.3	
1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	0.0061		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0		1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	1500.0	
GROUP_2B	GROUP_2B	GROUP_2B	GROUP_2B	GROUP 2B	GROUP_2B	GROUP_2B	GROUP_28	GROUP_2B	GROUP_2B	akooke za	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	GROUP 3B	GROUP 3B	GROUP_3B	GROUP_3B	GROUP_3B	!	GROUP 4B	GROUP_4B		GROUP_4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP 4B	GROUP 4B	GROUP_4B	GROUP_4B	GROUP_4B	GROUP 4B		GROUP_4B	
	W45P61	W4SP61	W45P61	W45P61	W45P61	W45P61	W4SP61	W45P61	W45P61	7.0	W45P61	M45P61	W45P61	W45P61	143561	W45P61	W45P61	W45P61	W45P61	W45P61	M45P61	W4SP61	W45P61	W4SP61	W45P61	#45P61	W45P61	W45P61	#45.P61	H45P61	W45P61	W45P61	M45P61		W45P61 W45P61	W45P61	W45P61	W45P61	WASPEL	W45P61	W45P61	W45P61	W4SP61	W4SP61	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61 W45P61	W45P61	W4SP61	

Case: 2004 WINTER PEAK ECAR BASE CASE	W45P61_W: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 161	LF Case: W45P61 W.say: MON: PHC.mon: SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC
---------------------------------------	---	---

13.524	16.161	16.114	76.76%	14.064	100.601	108.91	56.824	45.924	12.072	18 148	38.13%	45.21\$	45,284	29.421	160.IE	17.434	14.414	192.124	187.264	175 964	11.554	19.634	107.924	20.621	20.581	28.161	25.731	74.69.47	25.384	22.541	44.921	9.584	31.54*	2.941	19.61	18.034	17.561	15.594	21.081	18.984	5.44	4.57	2.461	1.484	, e	69.29¢	151.69	25.77	14.645	17.405	11.924	109.01	113.61	29.331	33.654	30.58%	23.174	13.778	
-136.8 13		1198.9 14			74.6 10	-			197.5									• • •	11.1 18	•				Ŕ			21.8 2					•	74.0	-			+			34.6	198.0	56.4	31.0	200.6	395.3					258.2						1.850			
1.9	,	-	٠		70.2				143.9						E.	۲.	•		2. 0	, ,			-					136.2						236.9							101.4				288.5	70.2	6		S		- 240.7 as s	, -			•	186.5	7.1		
-22.9		-		•					-		7				-		-									•													ì	•		•			_			-			•	_		•		-			
-0.09052	0.02919	0.09664	0.02590	0.01597	0.05722	0.05701	0.01803	0.03715	-0.03504	0,02481	0.01827	10,000,0	-0.08551	0.02261	-0.02130	0.02349	0.01827	-0.02601	0.02601	-0.06287	-0.02175	0.000	-0.02175			-0.19282	0.01335	0.06234	0.17715	0.02832	-0.14028	0.01581	-0.06624	-0.07048	-0.07965			0.00552	-0.10024	0.01646	0.02439	0.01646	0.01181	0.05315	0.07239	0.03743	0.03729	-0.02152	0.01267	-0.03854	-0.03854	79990	0.05607	-0.21125	-0.24437	0.14361	-0.11056	97760-0-	
-223.9	1132.6	1724.0	164 2	-280.0	132.2	132.2	-71.8	-199.5	222.9	171.8	172.0	6.412-	6.705-	171.9	176.0	-189.3	190.8	-58.5	57.4	-216.0	5.85.	n 07 7	5.83	-307.3	-306.0	-557.4	51.8	285.3	8.792	142.2	-242.2	138.8	-168,8	-445.0	0.024	132.2	132.2	52.1	-223.9	47.9	190.1	72.0	7.87	334.3	553.8	132.2	132.2	176.0	171.8	-307,3	-306.0	177.3	445.9	-557.4	-358.9	597.8	-242.2	-168.8	
-66.8	1214.2	810.6	1.651	281.7	124.3	124.2	-74.7	206.8	232.0	164.8	167.6	E. 405.	2.182	161.0	188.6	-181.1	182.7	-13.9	7.9	-184.2	-20.0	i	-15.3	242.4	240.7	313,5	30.0	204.6	26.1	83,1	-37.5	111.7	-58.9	-344.5	7.016-	70.2	69.69	26.5	-66.8	16.7	151.0	7. 92	36.7	184.5	404.0	124.3	124.2	188.6	164.8	-287.2	-285.5	161.0	387.2	-313.5	-113.1	319.8	-37.5	-58.9	
	-	-		٠.'				•				•	•	•		•				•				•	•	•								•	•								66																
5 161 1	'E 500 1.	200	IN 161 1	1 138 T	138		138	161	7F 161	υ	LK 138 1			1 20 1	24 138 1	1 138 1	LK 138 1	BR 138 1	BR 138 1	200	138	5	1 181 X	200		7 345 1	138	138	BR 138 1	191	191	161			VE 345 1	1 141 40		OSMILLER 138 1		BR 138 1		H 138 1	OSE HAVNES.O	14WILSOS 161 1	T 161 1	2		138	138		138	138	350 500 1	345		102 161 1		14MILSO5 161 1	
27553 14WILSOS 161				87 20JKSMIT			02 20AVON	00 ZOPOWELL	00 20POWELL	26 110HIO				of Linkkon			66 ZOSPURLK	73 OSMILLBR	73 OSMILLBR				91 SBOWL GR			63 14COLE 7			73 OSMILLBR			00 20LAURLD	53 14WILSOS			27553 14W1LSOS				23173 OSMILLBR		27142 11SMITH	24089 OSE HA		326 SABERD T	674 9014 99044	27095 11GR RVR		27126 110HIO C	27100 11HARDN			18430 SDAVIDSO	18691 580WL GR				27553 14MILSO5	
161 275	8 500 18468	200	161	P 138 29387	191	161	138	161	161	138	138	200	138	0 136 2/100	161	345	138	R 138 23173	R 138 23173	200	138	345	3 161 18691			7 345 27563	E 138 27141	345	138	161 27553	161	161	161 27553	191	138	161		R 138 23173	101 275	138	345	345	0.0	161	161 18926	į	1 5	197	138	138	138	138	200	191	161	161	191	161	
11GR RV	8 SPHIPP B	7 SWBNP 1	7 11ARNOLD	D 11LR TAP											5 LIGK KVK					1 SBAD CRK	1 OSFULLER	4 11BRWN N	2 SPARADIS 161			1 14871.50	1 11BONNIE			B 11GR RV	1108	ZOLA	8 11GR RV		1 OBSGROVE 138	8 11GR RV		1 055111.65	8 11GR RV	1 OSFULLER	0 20AVON	27012 11SMITH	I USFULLER 138	27028 11GR RV	2 SPARADIS		IN TICK KV	14HE						12 SPARADIS			11GR	28 11GR RV	
C:Open 27028 11GR RV 161	C:Open 18018			C:Open 27110			C:Open 27113		C:Open 29386						C:Open 27095				C:Open 23051	C:Open 11101	C:Open 23051	C:Open 27004	C:Open 18012	C:Open 23051	Bugs Cauc	C:Open 27561 14WILSO7	C:Open 27051	C:Open 27012		C:Open 27028	C:Open 27028	C:Open 29398	C:Open 27028		C:Open 25691	C.Open 27028	Base Case	Base Case C.Omem 21051 OSFULLER 138	C:Open 23031				C:Open 23051		C:Open 18012		C:Open 27028	C:Open 27560			C:Open 27099	C:Open 27095	C:Open 18425		C:Open 2/561		C:Open 27028	C:Open 27028	
1	1 6:		-		٠,		-		,			-	+	H .	Ν,			1			1	-		٠,	٠.			1		. .	٠.		н	,		-		.	٠.		-	,			-							2					-		
14N.HARS 161	SVOLUNTE 161	BVOLUNTE 500	20GRNHLJ 161	20BTYVL 161	TIGO OND 138	11GR RVR 138	20FAYETT69.0	11HI TAP 161	11WI TAP 161	110HIO C 138	11GODDRD 138			INSMITH 345	27126 110HIO C 138	11GR STL 138	11WEDONI 138	OSFRANKN69.0	20ARGTM 69.0	SROBBING 161	OSN HAVH69.0	11W LEXN 138	SABERD T 161	DSPLYM.069.0	115MITH 136	10	20STEPHN69.0	11HARDN 138	20ARGIM 69.0	14COLE 7 345	IICLVRPR 138	11FARLEY69.0	10NEWTVL 161	SABERD T 161	08BUFIN1 345	14N.HAR4 138	11GR RVR 136	11GR RVR 138		05 LEONKY 69.0	11RODBRN 138	11SHREWS 138	OSHITCHIES.O	14NATALS 161	SBOWL GR 16			11GR RVR 138				110HIO C 138			14WILSOS 161	7		LONEWIVE 161	
Eing Gommeraint 38 27616 14N.HAR	18469 5VO			29215 208			29319 20F	27045 11W	27045 11W					27012 118	27126 110				29198 20A	11172 5RO	24091 05N				211 261/2			27100 11H			27079 110		26857 108	18926 SAE					29406 201				24070 058				27095 110	27095 110	27176	27142	27012	27126	18430	18926	27553	27563	27552	26857	2
14N.HAR4 138 27616	BVOLUNTE 500	200		161	100	161	69,0	11DELVIN 161	191	138	138	161	345	345	138	138	138	9.65		SNANTARA 161	0.6	345		0.69	5 5	161	0.69	LIHARDBG 138			LONEWIVE 138	191	138	161		•		RV 161	05LEONKY69.0	OSKITCHI69.0	11GODDRD 138	110HIO C 138	ALT 69.0	DSDCKEMPES.O	SPARADIS 161				LOCULDEN 138			~		m	2	14WILSO7 345	TONBETVL 161	LONEWTVL 138	20.00
3885	18468 BVOLL				Z/105 LIRENION			27023 11DE	27034 11LR TAP						27095 11GR RVR	22024 INCUMENT			-						27012 11SMITH	27028 11GB RV		• • •	•••		26855 10NE				-	•							Ξ.				-			27012 11SM					_ :	18034 SC-31 27561 14WILE			
100F 0.18650 27	-0.35537 18	0.75412 18		0.10782 27	0.82125 27	0.77429 27			0.32399 27	0.75817 27	-0.47947 27					70 16878.0-	-0.47947 27	0,77655 24	-0.77655 24	=	0.48510 24	-0.51651 27	0.37320 18	0.48510 24	N C	76 FINCA 0-	-0.25368 27	-0.28217 27	1.00000 25	-0.56709 2	-0.16831 26	-0.31512.2	0.22051 20		0.19132 25404	0.13262 2	2		-0.16741 24075	-0.10266 24070	-0,19123 27093	-0.09687 2	-0.10266 24063	1.88814 24088	0.41330 18012		0.77495 2	0.77429 2	0.42491 2	0.75817 2	-0.32916 2	0.74073 2	0.60927 1	0.37320 18013	-0.42013 2	1 -0.56709 2	0,35634 2685	0.22051.2	
-0.12491	06765		,			0.10132			.0.06858							0.02468			,	•		٠			0.08551 -	- 15595.0-						- 66902.0			0.02850	-0.10522	0.05722 -	•		0.02686				0.02929			0.06633			0.02143			-0.18936			-0.24437 -		AE 880 0-	
	• 6		' ¤	~	e .			æ	œ						•	281.5 X				505.5 • -(764.0							•	•					•	1153.5				1430.7					≃ .		409.0		2			1006.2 * .			
6V63 PCITC 1500.0 1257.9	0.0 -1206.3					1500.0		•								1500.0 28																76 0.0051								211 0.0021					1500.0 145						1500.0 40					1500.0 100			
)051	1500	150	150	150	150	150	1500.0	1500.0	150	150	150	150	150	1500.0	150	150	1500.0	051	150	1500.0	1500.0	150	1500.0	1500.0	1500.0	1500.0	150	150	150	150	150	251	151	150	150	150	150	150	150	150	150	150	150	150	150		150	15(15	រុំ រុំ	251	150	15(15(15	15	e1 15(1	
-48 -48	g	, g,	5.8	es_	ES. 1	g' 1		E.	85	85	85,	. S	. SB	85,	SB	8, 8	, .	, £	3 65	- 85	. S.	85,	85.	5B	es :	E .	, es	85	65	Es-	- 58	B, 5	B 0	3, 65	85,	85.	85	85.	85.	8, s		. 2B	85.	. 58	8 5	9	89	E9 -	69	8.	6 5	6 6	. 6	. E.	. e9.	6	8 6 0	a !	
GROUP_4B	alload	GROUP	GROUP_SB	GROUP_SB	GROUP 5B	GROUP_SB	GROUP SB	GROUP SB	GROUP_SB	GROUP_5B	GROUP_5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	as alloas	GROUP SH	GROUP SB	GROUP 5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_5B	GROUP_SB	GROUP_SB	GROUP SB	GROUP SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	akour sa	GROUP 5B	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP_SB	GROUP SB	GROUP 5B	GROUP	GROUP_SB	GROUP_5B	OS OS	GROUP	GROUP	GROUP_6B	GROUP, 6B	GROUP_6B	DON'S	GROUP 6B	GROUP, 6B	GROUP_6B	GROUP_6B	GROUP 6B	GROUP, 6B	
45P61 GROUP_41																																										-																	
W45P61	19050	N45P61	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61	W4SP61	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61	MASPEL	W45P61	W45P61	W45P61	W45P61	W45P61	W4SP61	W45P61	W4SP61	W45P61	W45P61	W45P61	W45P61	W4SP61	W45P61	W45P61	Taken	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61	W45P61	WASPEI	W4SP61	W45P61	W45P61	W45P61	MADE A	W45P61	W45P61	W45P61	W45P61	W45P61	Toda San	W45P61	W45P61	W45P61	W45P61	W4SP61	W45P61	

	**************************************	e	1500.0	1150.5 R	-0.02423	CAMBONOR 161 18737 SNOLAVLE 161	C:Open 18449 BWILSON 500 18450 5WILSNIN 161 1	387.8	360.0		259.2	243.9	2.37
	W45P61 W45P61	GROUP_6B	1500,0	1267.3 * 1330.8	-0.07929	5E BOWL 161 18926 SABERD T 5C-31 161 18035 5C-33	012 SPARADIS	-344.5	-445.0	-0.05607	-236.9	-307.9	4.144
	W45P61	GROUP_7B	1500.0	93.3 •	0.08390	27028 11GR RV 161 27095 11GR RVR	RV 161 27095 11GR RVR 138	124.3	132.2	0.04735	70.2	74.6	89.224
	W4SP61	GROUP_7B	1500.0	94.9	0.08383	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR 138	124.2	132.2	0.04717	6.69		10.68
	W45P61	GROUP_7B	1500.0		0.03181	27095 11GR RVR 138 27126 11OHIO C	27095 11GR RVR 138 27126 11OHIO C 138	164.8	8.171	0.01881	97.5		23.70%
	W45P61	GROUP 7B	1500.0	281.3 K	-0.04492	1 11SMITH 345 27142 11SMITH	27560 19HENDES 161 27617 19HENDES 138 27099 11HARDEG 138 27100 11HARDN 138	-287.2	-307.3	-0.05769	-242.4	-258.7	28.224
	W45P61	group_7B	1500.0	287.9 *	-0.07121	11HARDN 345 27012 11SMITH	27099 11HARDEG 138 27100 11HARDN 138	-285.5	-306.0	-0.05769	-240.7		28.21%
	W45P61	GROUP_7B	1500.0	349.8	0.03108	5 11GR RVR 138 27126 110HIO C	27095 11GR RVR 138 27126 11OHIO C 138	161.0	171.9	0.01714	86.8	94.8	20.78%
Column C	W45P61	GROUP 78	1500.0	414.6	-0.02209	S IICLVRPR 138 27094 IIGN STL S SROBBING 161 18040 SSANTEET	27012 11SMITH 345 27142 11SMITH 138	-181.1	-216.9	-0.02805	-110.3		14.051
Column	W45P61	GROUP_7B	1500.0	662.6 *	0.08857	18012 SPARADIS 161 18926 SABERD T	18012 SPARADIS 161 18691 580WL GR 161	387.2	445.9	0.06315	279.6		16.634
	W45P61	GROUP_7B	1500.0	867.2 *	-0.06115	11192 ALBEMARL 100:11291 OAKBORO	Open 11192 ALBEMARE 104 11291 OAKBORO 100	-101.1	-154.1	-0.04140	-68.4		25.13%
Column C	W45P61	GROUP_7B	1500.0	869.7 4	-0.06110	11192 ALBEMARE 100 11291 OAKBORO	11192 ALBEMARE 100 11291 OAKBORO 100	-101.0	-154.2	-0.04133	-68.4		24.94%
March Marc	W45P61	GROUP 7B	1500.0	877.5 *	-0.11242	7 BADIN 100 11192 ALBEMARL 7 BADIN 100 11192 ALBEMARL	11087 BADIN 100 11192 ALBEMAKL 100 11087 BADIN 100 11192 ALBEMARL 100	-13.4	-172.0	-0.06418	-41.9	-98.2	40.72
March 1985 1	W45P61	GROUP 7B	1500.0	923.5 •	-0.26410	27028 11GR RV 161 27553 14WILSOS	27561 14MILSO7 34S 27563 14COLE 7 345	-313.5	-557.4	-0.19336	-235.1	-413.7	27.314
Column C	W45P61	GROUP_7B	1500.0	1000.0	0.27803	27561 14WILSO7 345 27563 14COLE 7	27028 11GR RV 161 27553 14WIL9O5 161	319.8	597.8	0.16838	186.5		23.26%
Column C	W45P61	GROUP_7B	1500.0	1020.7	-0.20059	26857 10NEWTVL 161 27552 14COLB 5	27028 11GR RV 161 27553 14WILSOS 161	-37.5	-242.2	0.13169	6.3		39.714
18.00 113.1 1.00 113.1 1.00	W45P61	GROUP 7B	1500.0	1048.6 *	0.05516	26855 10NEWIVE 138 26857 10NEWIVE 26855 10NEWIVE 138 27079 11CLVRPR	11GR RV 161 27553 14WILSOS 161 11GR RV 161 27553 14WILSOS 161	1.68	142.2	0.02262	43.5		16.624
9007.7 180 1111 - 1211	W45P61		1500.0	1124.7	-0.05769 -	27012 11SMITH 345 27142 11SMITH	Case	-242.4	-307.3				7.041
00007.73 1110.1 1111.1 111.1 111.1 111	445P61	GROUP_7B	1500.0	1132.5	-0.05769	11HARDN 345 27012 11SMITH	Case	-240.7	-306.0				6.94%
1860 1860	W45P61	GROUP_7B	1500.0	1133.1 •	-0.02805	11084 SNANTAHA 161 11172 SROBBINS	11101 8BAD CRK 500 11102 8JOCASSE 500	-184.2	-216.0	-0.02805	-89.2	-121.0	7 775
1870 1870	W45P61	GROUP_7B	1500.0	1134.6 •	-0.08857	18692 58 BOWL 161 18926 SABERD T	18012 SPARADIS 161 18691 SBOWL GR 161	•	-445.0	-0.04455	18.0		22.234
Control 1800 1815	W45P61		1500.0	1309.6		27028 11GR RV 161 27095 11GR RVR	Case		132.2				6,83%
0.00007_37 186.0 146.1 0.00007_28 146.0 0.00007_38 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007_38 146.0 0.00007	W45P61		1500.0	1320.5		27028 11GR RV 161 27095 11GR RVR	Base Case	6.69	132.2				6.40%
Control 1850 1862	W45P61	GROUP_7B	1500.0	1403.4 *	-0.08103	3 11HARDBG 138 27615 14N.HAR4	11GR RV: 161 27553 14WILSOS	-110.1	-223.9	-0.05539	0.62.	-156.7	3.464
Copes 1510	W4SP61	GROUP_7B	1500.0	1406.3 *	0.05737	11HARDEG 138 27100 11HARDN	27012 118MITH 345 27142 118MITH		285.3	-0.04169	5.0.	-65.0	1.384
Control 110	W45P61	GROUP_7B	1500.0	1455.1 *	-0.10798	14N,HAR4 138 27616 14N.HAR5	27028 11GR RV 161 27553 14WILSOS	ī	-223.9	-0.07192	-22.9	-127.6	2.181
0.00000000000000000000000000000000000	MASPAT	an alloas	2005	-3057 1 *	0.02062	ATMITTED OF STREET	18018 SPHIPP B 500 18468 SVOLUNTE	1214.2	1132.6	0.00572	793.9	771.3	9,94%
000009_8 150.00 150.0	W45P61	GROUP BB	1500.0	-1943,3 *	0.04457	18464 8BULL RU 500 18468 BVOLUNTE	18457 8MBNP 1 500 18468 8VOLUNTE 500	1810.6	1724.0	0.03510	1264.6	1196.4	8.90£
CORONING 1500.0 257.7 C. 10.1244 C. 10.1245 C	W45P61	GROUP_8B	1500.0	-372.0 *	0.03396	1 10CULLEY 138 26879 10GRNDVW	26861 10ABBRWN 138 27617 14HENDR4	188.6	176.0	0.01015	143.3	139.6	36.104
1000000000000000000000000000000000000	W45P61	GROUP_6B	1500.0	430.7 *	-0.03366	26855 10NEWTVL 138 26879 10GRNDVW	27560 14HENDRS 161 27617 14HENDR4 138	-161.1	-175.6	-0.01086	-117.7	124.7	74.57
	W4SP61	GROUP, BB	1500.0	592.9	0.19914	26857 IONEMIVE 161 27552 14COLE 5	2/561 14WilsO/ 345 2/563 14COLE / 345 25948 06GIBSON 345 26081 08GIB 138	-122.3	-142.1	-0.01196	4.2	-13.1	14.178
Company State St	W45P61	GROUP 88	1500.0	610.4	0.07242	18012 SPARADIS 161 18926 SABERD T	18012 SPARADIS 161 18691 SBOWL GR 161	387.2	445.9	0.05191	279.6	321.6	11.204
Group Bis 1900.0 1913.1 0.13986 0.13910 0.1710 0.1210 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1510 0.1710 0.1710 0.1710 0.1510 0.1710 0.1710 0.1710 0.1510 0.1710	W45P61	GROUP_BB	1500.0	844.7	-0.13986	14HENDR5 161 27617 14HENDR4	27561 14WILSO7 345 27562 14REID 7	-105.9	-224.0	-0.05604	106.5	-153.9	10.931
CHOOLE B 1500.0 10341.5 0.12730 24525 10880PT 1.1 1.0	W45P61	GROUP_8B	1500.0	844.7 *	0.13986	26861 10ABBRWN 138 27617 14HENDR4	27561 14WILSO7 345 27562 14REID 7	105.9	224.0	0.05604	106.5		34.07
Coronia 1300.0 1303.1. 0.18598 0.185	W45P61	GROUP_8B	1500.0	1024.5	0.12107	26855 10NEWIVE 138 26857 10NEWIVE	27561 14WILBO7 345 27563 14COLE 7 345	1.84	597.B	0.16035	186.5		22.224
1500.0 1301.0 1	W45P61	GROUP 88	1500.0	1.2611	0.35384	27561 14WILSO7 345 27563 14COLE 7	27561 14WILSO7 345 27563 14COLE 7 345	105.6	7.765	0.31604	-2.5		20.324
Company Comp	W45P61	GROUP BB	1500.0	1233.0 *	0.03427	27106 11KNOB C 138 27135 11POND C	18012 SPARADIS 161 27616 14N.HARS	100.0	142.2	0.01673	67.9	108.5	6.474
Group BB 1500 0 1441.3 0.01792	W4SP61	GROUP_8B	1500.0	1260.3 *	0.03427	5 11POND C 138 27144 11TIPTOP	SPARADIS 161 27616 14N.HARS	6.66	142.5	0.01673	27.5	7. BOT	1.83%
GROUP_BB 1500.0 1442.1 0.19653 0.30128 INVESTED 16428 SUCHINES 500 18408 SUCHINES	W45P61	GROUP_8B	1500.0	1307.6 *	-0.07242	2 5E BOWL 161 18926 SABERD T	5PAKADIS 161 18691 14WILSD7 345 50010	84.u	334.5	0.12217	84.3	260.1	3.19%
CROUP_BB 1500 0 1472 1 0 14862 1 0 14862 1 1	W45P61	GROUP 8B	1500.0	1464.9 R	-0.06864	BJVILLE 500 18430 8DAVIDSO	ACUMBERL 500 18430 8DAVIDSO	1831.9	1731.4	-0.03740	635.1	780.3	0.14%
CHOUD_NB 1500.0 - 1566.1 0.04566 - 0.156577 16466 BVOLANTE SO I Cropen 18418 B SON 18466 B VOLANTE SO I 1310.6 1724.0 0.07590 1246.6 1000.0 1500.	W45P61	GROUP BB	1500.0	1472.1 *	0.19653	5 SBARKLEY 161 27619 14HOPCOS	345 27562 14REID 7	45.6	242.2	0.10131	£	6.641	1.001
Company Comp	W45P61	GROUP_8B	1500.0	1481.5	0.13222	/ IONEWIVE INT 2/552 14COLE 5						1	
GROUP_BIS 1500.0 687.1 6.09663 0.75412 MRK NR 12 12.2248 108LLY CORP. TOTAL INCLUDE SOLI 1.000.0 1.0	W45P.61	GROUP_NB	1500.0	-1868.1 *	0.04368	8 SYOLUNTE SOO 18469 SVOLUNTE	SPHIPP B 500 18468 BVOLUNTE 500	1214.2	1132.6	0.01084	793.9	1196.6	12.994
Company Comp	W45P61	GROUP_NB	1500.0		0.09653	4 SBULL RU 500 18468 BVOLUNTE	05WAGENH 138 23711 05LTV 138	239.9	239.9	-0.02282	237.6	237.6	14.274
Charles Concerned Concen	WASPET	GNOUP NE	1500.0		0 08887	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR 138	124.3	132.2	0.05015	70.2	9. 14.	94.861
GROUP_NB 1500.0 255.7 R - 0.02560 0.75617 Z0051 GRR NY 18 1 C10pen 27055 INREN X 18 12 Z727 1448004 135 1 18.6	W45P61	GROUP_NB	1500.0	9.68	0.08880	27028 11GR RV 161 27095 11GR RVR	27028 11GR RV 161 27095 11GR RVR 138	124.2	132.2	0.04996	69.9	101.6	21.771
GROUP_RR 1500.0 255.7 R 0.04540 0.04212 1500THT 135 1 CTOPH 27092 11NARDE 135 2700 11	W45P61	GROUP_NB	1500.0	237 6 •	0.02960	27095 11GR RVR 138 27126 110HIO C	27095 11GR RVR 136 27126 11OHIO C 138	188.6	176.0	-0.02587	143.3	136.7	34.941
GROUP_NG 1500.0 304.0 -0.05532 C.7006 ILHARDN 345 27012 ILSN/TH 345 I C.Open 2709 ILHARDN 138 2710 ILHARDN 345 27012 ILSN/TH 345 I C.Open 2709 ILHARDN 138 1 2.05.0 0.05535 206.0 0.0553	W45P61	GROUP_NB	1500.0	255.7 R	-0.04940	25851 10CULLEY 138 26879 10GRNDVW	27099 11HARDBG 138 27100 11HARDN 138	-287.2	-307.3	-0.05347	-342.4	-258.3	26.311
GROUP_NB 150.0 175.9 • 0.02892 0.74073 27095 110R RVR 138 27126 110R RVR 138 27126 110RTO C 138 1 161.0 171.9 0.01595 88.8 68.8 GROUP_NB 150.0 645.6 • 0.08991 0.73730 180.12 SPARADIS 161 1825 65NARADIS 161 1825 150NARADIS 161 1825 151 1	W45P61	GROUP NB	1588.0	304.6	-0.06730	27006 11HARDN 345 27012 11SMITH	27099 11HARDBG 138 27100 11HARDN 138	-285.5	-306.0	-0.05347	-240.7	-256.9	26.294
GROUP_NB 1500.0 645.6 • 0.09091 0.73320 18021 SPARADIS 161 18326 SPARADIS 151 1821 SPARADIS 151 SPARADIS	H45P61	GROUP_NB	1500.0	375.9	0.02892	27095 11GR RVR 138 27126 11OHIO C	27095 11GR RVR 138 27126 110HIO C 138	161.0	171.9	0.01595	8.8.8	321.6	17.424
GROUP,NB 1500.0 1032.2 0.2745.0 0.2745.0 10.000.27561 1401.000.0 145.1 161.27553 1401.000.0 1441.000.0 161.1 19.8 597.8 0.1750.2 186.5 GROUP,NB 1500.0 1047.2 0.2745.2 0.27554 1601.0 156.2 146.1 161.27553 1401.000.0 161.	W45P61	GROUP NB	1500.0	645.6 *	0.09091	18012 SPARADIS 161 18926 SABERD T	18012 SPARADIS 161 18691 27561 14WILSO7 345 27563	-313.5	4.557.4	-0.17574	-235.1	-407.1	23.334
GROUP NB 1500.0 1047.2 + -0.19551 0.35634 26657 10NEWTVL 161 27552 14COLE 5 161 1 C:Open 27028 110R RV 161 27553 14MLEGOS 161 1 -37.5 -242.2 -0.13289 46.3	W45P61	GROUP_NB	1500.0	1012.2	0.27469	27561 14MILSO7 345 27563 14COLE 7	27028 11GR RV 161 27553	319.8	597.8	0.17502	186.5		22.424
	W45P61	GROUP NB	1500.0	1047.2 *	-0.19551	26857 10NEWIVL 161 27552 14COLE 5	27028 11GR RV 161 27553	-37.5	-242.2	-0.13289	E.		* /n · o

Case: 2004 WINTER PEAK ECAR BASE CASE W45P61_W: 1500 MW SPUT BETWEEN WILSON 345 PARADISE 161 LF Case: W45P61_W sav; MON: PHC.mon; SUBSYST: PHC.sub; CONT: PHC.con; EXCL: PHC.EXC

Partie

	or allows	1500 0	1401 0 0	17000 0-	n 22051 26855 10NEWIVE 138 26857 10NEWIVE 161 1	C:Open 27028 11GR RV 161 27553 14HIL505 161 1	-58.9	-168.8	96090'0-	-7.1	-74.2	23.50
445761	GROUP EN	0.0051	1105 4 4	16080-0-	SE BOWL 161 18926 SABERD T 161 1	C:Open 18012 SPARADIS 161 18691 SBOWL OR 161 1	-344.5	-445.0	-0.06539	-236.9	-309.2	90.8
140761	and anone	0.001	2 5 16 1	- 292342	HIISHITH	Base Case	-242.4	-307.3				96.
143761	GROUP NB	1500.0	1221.8	-0.05347 -	11HARDN	Вале Саве	-240.7	-306.				
20101	aw dilong	0 0031	1276.4	0.05015 -	27028 11GR RV 161 27095 11GR RVR 138 2	Base Case	70.2	132.2				
1000	an anoas	1500.0	1246.7	- 96690	11GR RV	Base Case	6,63	132.2			;	9 0 0
19201	an alload	1500	1972.0 •	0.04650		C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	83.1	142.2	0.01692	43.5	69	. 434
	GROUP 'NB	0.0011		12101	14N.HAR4 138	C:Open 27028 11GR RV 161 27553 14WIL9O5 161 1	-66.8	-223.9	-0.08824	-22.9	-137.5	106.01
W45P61	GROUP, NB	0.0061	1 1 1 1 1 1 1	10100		C:Open 27028 11GR RV 161 27553 14WILSOS 161 1	-110.1	-223.9	-0.06392	-79.0	-162.3	7.614
W45P61 W45P61	GROUP_NB	1500.0	1412.9 *	0.05710		C:Open 27012 11SMITH 345 27142 11SMITH 138 1	204.6	285.3	0.04201	136.2	195.6	1.74
						1 8EL BVR 1985 136 VR 45FF 8075 1400-7	124.3	132.2	0.04724	20.2	74.6	89.02
W45P61	GROUP SB	1500.0	93.5	0.08372	LIGH RV 181 2/095 LIGH NVA 138	27028 11GR RV 161 27095 11GR RVR	124.2	132.2	0.04707	6.69	74.4	88.86
W4SP61	GROUP_SB	1500.0	95.1	0.08365	LIGH RV 161 Z/053 LIGH NVR	CHOIL ACITS REL GUS GOLL SOUTS	164.9	171.8	0.01874	5.76	101.6	23.591
W45P61	GROUP_SB	1500.0	222.0	0.03168	LIGH NAM 138	SOCIETY OF STATE OF S	-287.2	-307.3	-0.05822	-242.4	-258.6	28.621
445P61	GROUP_SB	1500.0	278.4	-0.07203	CITIZETY SELIZ CAS MINEST	27560 14HENDRS 161 27617 14HENDR4	188.6	176.0	-0.02296	143.3	136.9	31.054
W45P61	GROUP_SB	1500.0	281.8 R	-0.04483	-0.42491 Zeasi Incombi 130 Zee/9 Incompos 130 I	27099 11HARDEG 138 27100 11HARDN	-285.5	-306.0	-0.05822	-240.7	-257.2	28.614
W45P61	GROUP_SB	1500.0	9. 4RZ	-0.07203	TOTAL STATE STATE MANUAL TOTAL STATE	27095 11GR RVR 138 27126	161.0	171.9	0.01707	88.9	94.8	20.67
W45P61	group SB	1500.0	351.2	56060.0	11GK KWK 138 2/128 XXORIO C 138	22012 11SMTTH 345 27142 118MITH	-181.1	-189.3	0.01328	-36.7	-31.6	12.634
W45P61	GROUP_5B	1500.0	383.1	-0.02141		11101 RBD CRK SOO 11102 BJOCASSE	-205.3	-216.9	-0.02300	-110.3	-121.9	10.564
W45P61	GROUP_SB	1500.0	505.6	- 0.02300	T 12 T database of the 1st terminal court occur of	18012 SPARADIS 161 16691 SBOWL GR	387.2	445.9	0.06311	279.6	321.4	16.591
W45P61	droup_se	1500.0				C:Open 27561 14WILSO7 345 27563 14COLB 7 345 1	-313.5	-557.4	-0.19441	-235.1	-414.3	27.478
WASPEL	akoni sa	0.0001	•	0.000	14WILSO7 345		319.8	597.8	0.16728	186.5	354.1	23.13%
Masker	as Joons	0.10		10000		27028	-37.5	-242.2	-0.13121	46.3	-87.7	39.64
M45P61	GROUP_SB	1500.0		107.0-	ACOCC TONEMENT 130	27028 11GR RV	-58.9	-168.8	-0.06184	-7.1	-71,9	27.94
W45P61	GROUP_SB	1500.0		1/101.0-		27028 11GR RV	83.1	142.2	0.02230	43.5	67.5	16.481
W45P61	GROUP_SH	1500.0		0.0356	Cacabase cacat con resultant	C.OB-H 11192 ALBEMARE 100 11291 OAKBORO 100 1	-101.1	-154.1	-0.03264	- 68	-104.3	12.53
445P61	GROUP_SB	1500.0		-0.04821	CACAMAC	OAKBORO	-101.0	-154.2	-0.03259	-69.4	-104.3	12.364
W45P61	GROUP_SB	1500.0		11860.0-	ALBERTACH TOO TEXT CONDUMN	C. Char 11087 RADIN 100 11192 ALBEMARE 100 2	-73.4	-172.0	-0.05057	-41.9	-98.2	19.92
W45P61	GROUP_SB	1500.0		-0.08857	HADIN 100 11192 ADBENARD	100 11192	-73.4	-172.0	-0.05057	-41.9	-98.2	19.92
W45P61	GROUP_SB	1500.0		-0.08857	BADIN 100 11192 ALBEMAKA		-242.4	-307.3				7.304
W45P61	GROUP_SB	1500.0		-0.05822 -	IISMITH 345 2714Z IISMITH	ביים כיים כיים כיים כיים כיים כיים כיים	-240.7	-306.0				7.201
45P61	GROUP_SB	1500.0	•	-0.05822 -	11HARDN 345	Case tests chabbers is 18691 SBOMI GR 161 1	-344.5	-445.0	-0.06311	-236.9	-308.6	7,23
M45P61	GROUP_SB	1500.0		-0.08845	52 BOWL 161 18926		70.2	132.2				€.70
445P61	GROUP_SB	1500.0	1312.5	0.04724 -	11GR RV 161 27095 11GR RVR		0	132.2				6.28
W45P61	GROUP_SB	1500.0	1323.4	0.04707	11GR RV 161	Dage Cade Cate and the cate of	, 910.	-223.9	-0.05671	0.64-	-157.1	4.44
W45P61	GROUP_SB	1500.0	1378.6 *	-0.08249	11HARDBG 138 27615 14N. HAR4	TRI COCTURE COCT TOT	2000	785 3	0.04196	136.2	194.2	2.41%
445P61	GROUP_SB	1500.0	1381,6 *	0.05839	-0.28217 27099 11HARDEG 138 27100 11HARDN 138 1		-184 2	-216.0	-0.02300	-89.2	-121.0	1.25%
W45P61	GROUP_SB	1500.0	1381.8	-0.02300		and tilds accessed	8 33-	9.566-	-0.07372	-22.9	-128.3	3.51
					C CAN LEGET STR TANEET CON THE STREET CO.	T TOT COMPLETE SAME IN THE SAME TOTAL TOTA						

Scenario 10

Case; 2004 SUMMER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN)
W4SP00OS: 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500
LF Cases: W4SP00OS.sav; MON; PHC.mon; SUBSYST; PHC, eub; CONT; PHc.con; EXCL PHC.EXC

FCITC MULTIPLE TRANSFER REPORT:

MUST TITLS. ... MUST 3.20 *** FRI, FEB 23 2001 10:08 ***
 TITLS. 2004 SUMBER PDAK ECAR BASE CASE (PRC 345 KV TE OPEN)
 TITLS. 4 M45POODS. 1500 M AT PARADISE 500 KV AND 1500 MM SPLIT ON PARADISE 500 AND 161 KV
 Honltor Fils. C.\BV-USERS\NOBODY\Kentucky\PHC.mon
 CONTINGENCY Fils. C.\BV-USERS\NOBODY\Kentucky\PHC.con
 Subsystem File. C.\BV-USERS\NOBODY\Kentucky\PHC.aub
 Exclude File: none

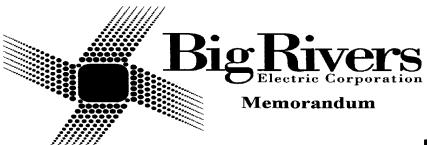
-						-		_	*	-	Ē	#	10	*		7	
# OE		٠	•	`		43.6				5.49%	11.2	10.01%	1.768				
Patibles 378 6		0.050	142.9	1731 9		134.1	164		249.4	531.9	317.3		-307.1	9 17.71			
tather	255.5	532.9	137.9	1010	1016.1	-1112.4	7 7 7 1		279.7	532.9	257.4		-216 8	1010	4.4704		
	0.01120	0.00677	0.02713	1 00000	1.00000	0.310.0	25.01	-0.02042	0.06552	0.00223	0.06404		PU 054 D4	00000	0.0000		
17117	450.5	748.4	201.5	0.100	1731.9	1731.9		-443.4	343.6	748.4	444.5	9.695	777		1131.9	1/31.9	
anite.	9.00	757.9	191.6	- 450.B	1012.1	1012.1	-122.0	6.181-	386.1	757.9	361.7	270 7		1.125-	1.7107	1012.1	
1	1863	1616	2471	1863	1115		1/6/1	2283	1599	1616	1596	1	,	1396	3344		
	8WILSON 500 18450		161 19117	SWILSNIN	C:16122 6GREENEC 230 17313 3RX BRN 115 99			C:18711 5GALLATI 161 19154 SHARTSVI 161 1	C:18012 SPARADIS 161 18926 SABERD T 161 1	1 OOS AVONDANT BEALLY BOOK SOO 1	1 190 00 1000 1000 101 0100000000000000	LANGE TOT CTOWNER	Base Case	C:18012 SPARADIS 161 18691 SBOWL GR 161 1	C:23111 05BOLIVA 138 23131 05DOVERT 138 1	Ваве Свяе	
room () Comment and the comment			0.34170 18711 SCALLATI 161 19154	-0.13791 18720 SRADNOR 161 19070 5GRASL T	0.00000 18427	18427 SPARADIS 500 18428 SMONTGOM	-0.05288 18645 SOAK PLA 161 18683 SCLARKSV	0.02972 -0.34272 18796 5PORT SS 161 19117 5FOUNTAI 161 1		0.0000 10400	0.28802 18409 BUACKSON 300 18410	0.37321 18012 SPARADIS 161 18926	18012 SPARADIS 161 18691	-0.37321 18692 5B BOWL 161 18926	0.50000 0.00000 18427 8PARADIS 500 18428 8MONTGOM 500 1	.50000 - 18427 8PARADIS 500 18428 BMONTGOM 500 1	
	-1865.3 * 0.			•			ď							•			
ansfer nefer val	500.0 -186	500.0 -336						1500.0 1391							1500.0 143		1
orting the first 200 violations per transfer								ALL_8					•		ALL B		
porting the fi	TI. PHC45	CT1 PHC45	TT1_PHC45	LT1_PHC45	TT_PHC45	TT1_PHC45	TT1_PHC45	[T1_PHC45	,	1261	1940	3P61	1940	3P61	1961	3961	

Scenario 11

Case; 2004 WINTER PEAK ECAR BASE CASE (PHC 345 KV TIE OPEN) W45P000W; 1500 MW SPLIT BETWEEN WILSON 345 PARADISE 500 LF Case; W45P000W.say; MON; PHC.mon; SUBSYST; PHC,sub; CONT; PHC.cov; EXCL: PHC.EXC

SPOOOW+POOP61_1500SPLIT.TRA AND W45P00OW+UNIT1_1500.TRA	\$5.00 lades SYGLANTE 16.1 C.18018 SHHIPP B 500 18468 SYGLANTE 500 1 1324 1181.2 1130.6 0.0378 179.9 176.9 17.524 1190.6 1170.6 0.13049 126.6 1191.9 130.5 6.9 17.524 1190.6 1170.0 0.13049 126.6 1191.9 130.5 6.9 17.524 1190.6 1190.9 126.6 1190.9 120.13049 126.6 120.0308 120.13049 126.6 120.0308 120.13049 126.6 120.0308 120.13049 126.0 120.0308 120.13049 12	500 18469 SVOLUMITE 161 1 C.18018 SPHIPP B 500 18468 BVOLUMITE 500 1 1524 1214.2 1132.6 0.01880 793.9 769.3 15.454 501 18468 BVOLUMITE 501 1 C.18457 BWRNP 1 500 18468 BVOLUMITE 500 1 1798 1810.6 1724.0 0.10802 1.2946 1124.3 16.514 161 18926 SABERD T 161 1 C.18012 SPANADIS 161 18691 SBOWL R 161 1 152 344.5 0.06381 2.296.9 132.0 16.514 500 18488 BVORUMINE 501 1 C.18012 SPANADIS 161 18691 SBOWL R 161 1 152 344.5 0.3600 1012.7 1730.5 1.864 500 18428 BVORUMON 500 1 Base Case
FCITC WULTIPLE TRANSFER REPORT: W45P0004-POOP61_15008LIT.TRA HUST TILLS: WASTON 1.20 "FIL. FEB 23 2001 10:29 "" TILLS: MASTON 1.20 "FIL. FEB 23 2001 10:29 "" TILLS: MASTON 1.20 "FIL. FEB 23 2001 10:29 "" WASTON 1.20 "FIL. FEB 23 2001 10:29 "" TAILS: 2004 WINTER PEM EAGE RASE CASE (PMC 345 KV TIE OPEN) WASTON 1.20 "FIL. STON WASTON TO FEB 20 KV AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV WASTON 1.20 "FIL. STON WASTON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV SCHALLEGON TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV SCHALLEGON TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV SCHALLEGON TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND SOON TRANSFER AND 1500 bW SPLIT ON PARADISE 500 AND 161 KV CANADA TRANSFER AND SOON TRANSFER AND SO		ALL_B 1500.0 -1310.5 0.06227 -0.35537 184668 80VOLUNTE 500 18469 5VOLUNTE 161 1 ALL_B 1500.0 -653.3 0.13297 0.75412 18464 80LL, BN 500 18468 8VOLUNTE 500 1 ALL_B 1500.0 665.3 0.08621 0.3320 18425 5PARADIS 161 18926 5ABERD T 161 1 ALL_B 1500.0 1139.2 -0.08821 -0.37320 18492 5P ENGL 161 18926 5ABERD T 161 1 ALL_B 1500.0 1435.6 0.50000 0.00000 18427 8PARADIS 500 18428 8HONTOON 500 1 ALL_B 1500.0 1435.6 0.50000 - 18427 8PARADIS 500 18428 8HONTOON 500 1

5.4.2 BREC Interconnection Feasibility Study (June 8, 2001)



Feasibility Study

for Peabody Thoroughbred Energy Campus 6/08/01 Progress Report

On March 30, 2001, Peabody Group (Peabody) requested the completion of a Feasibility Study. This executed Interconnection Study Letter Agreement specified a potential generation addition (one or two 750 MW units) in Muhlenberg County near Central City, Kentucky.

The initial focus of the Feasibility Study was to determine the connection requirements for one or both unit additions. This study includes power flow analyses with normal and single contingency conditions (one transmission line or transformer outaged with the outage of one generating unit). Cost estimates were not prepared as part of this initial evaluation.

The impact that the generation addition may have on the available transmission capacity (ATC) has not yet been analyzed (this includes any impact on Big Rivers' ability to meet existing ATC commitments as well as any ATC which may be available for the new generation). An ATC analysis would require an indication of the desired transmission service (OASIS request including type of service, amount, path, etc.).

750 MW Generation Addition Options Summary:

The purpose of this analysis was to identify any system problems which might result from the connection of one 750 MW generating unit to the Big Rivers transmission system. Various interconnection scenarios were studied. Each scenario and the study results are described below:

Base Case (no additional generation) To begin the study, the Big Rivers transmission system (with no Peabody generating units added) was studied. These study results were used as a benchmark for comparison with each scenario. These studies indicated that the existing Big Rivers transmission system is well matched to its generation and load levels (little or no excess transmission capacity above that already sold is available).

750 MW Connected to Wilson with no Transmission Improvements As expected, these studies showed multiple overloads with normal and contingency conditions. The overloaded facilities included the 58.9 mile 161 kV circuit from Reid to Hopkins County to Barkley (140%), the 30.7 mile 161 kV circuit from Coleman EHV to National Aluminum to Skillman to New Hardinsburg (146%), the 8 mile 161 kV circuit from Wilson to Green River (155%), and the 6.4 mile 161 kV circuit from Coleman to Newtonville (163%).

750 MW Connected to Paradise with no Transmission Improvements This scenario was run to

determine the expected impact of a 750 MW generation addition tied only to the Paradise 500 kV bus. No modifications of the Big Rivers system were modeled. These studies showed no significant impact to the Big Rivers transmission system.

750 MW Connected to Wilson and Paradise This scenario included the proposed generator connected to both the Wilson 345 kV bus and the Paradise 500 kV bus. The preliminary study results showed overloads during an outage of the Paradise to Montgomery 500 kV line as well as during an outage of the Peabody to Paradise connection. The other contingencies studied showed acceptable Big Rivers system conditions.

The overloaded facilities included the 58.9 mile 161 kV circuit from Reid to Hopkins County to Barkley (146%), the 30.7 mile 161 kV circuit from Coleman EHV to National Aluminum to Skillman to New Hardinsburg (137%), the 8 mile 161 kV circuit from Wilson to Green River (194%), and the 6.4 mile 161 kV circuit from Coleman to Newtonville (164%). In addition, the line loadings in the Green River plant area (Kentucky Utilities) should be analyzed.

750 MW Connected to Wilson with the addition of a Coleman EHV to Rockport Interconnection This scenario included the proposed generator connected to the Wilson 345 kV bus with no Paradise connection. In addition, a 345 kV interconnection from Coleman EHV to AEP's Rockport plant was modeled (345/765 kV transformer required at Rockport). These studies showed multiple overloads with normal and contingency conditions.

The overloaded facilities included the 22.2 mile 161 kV circuit from Reid to Hopkins County (105%), the 30.7 mile 161 kV circuit from Coleman EHV to National Aluminum to Skillman to New Hardinsburg (123%), the 8 mile 161 kV circuit from Wilson to Green River (150%), and the 6.4 mile 161 kV circuit from Coleman to Newtonville (137%). In addition, the line loadings in the Green River plant area (Kentucky Utilities) should be analyzed.

750 MW Connected to Wilson and Paradise with a Coleman EHV to Rockport Interconnection This scenario included the proposed generator connected to both the Wilson 345 kV bus and the Paradise 500 kV bus. In addition, a 345 kV interconnection from Coleman EHV to AEP's Rockport plant was modeled (345/765 kV transformer required at Rockport). The preliminary study results showed overloads during an outage of the Paradise to Montgomery 500 kV line, the Peabody to Paradise connection, and the Rockport to Jefferson 765 kV line. The other contingencies studied showed acceptable Big Rivers system conditions.

The overloaded facilities included the 22.2 mile 161 kV circuit from Reid to Hopkins County (114%), the 2.7 mile 161 kV circuit from Coleman EHV to National Aluminum (102%), the 8 mile 161 kV circuit from Wilson to Green River (160%), the 6.4 mile 161 kV circuit from Coleman to Newtonville (109%), and the 39.1 mile 345 kV circuit from Wilson to Coleman EHV (113% overload of terminal equipment). In addition, the line loadings in the Green River plant area (Kentucky Utilities) should be analyzed.

Because of the impact the generation addition may have on the regional transmission system, study results and generation addition plans should be shared with neighboring utilities. Through the sharing of study results, other contingencies or scenarios that impact the Big Rivers system may be identified. The evaluation of any additional scenarios identified (as well as the actual sharing of the results), will be completed in the next study phase (Detailed Interconnection Study). Short-circuit studies and stability studies will also be prepared as part of the Detailed Interconnection Study.

The purpose of this analysis was to identify any system problems which might result from the connection of two 750 MW generators to the Big Rivers and TVA transmission systems. Two interconnection scenarios were studied. Each scenario and the study results are described below:

750 MW Connected to Wilson, 750 MW Connected to Paradise with a Coleman EHV to Rockport Interconnection With this scenario, one generating unit was connected to the 345 kV Wilson bus and one generating unit was separately connected to the Paradise 500 kV bus (the units were not connected to each other). In addition, a 345 kV interconnection from Coleman EHV to AEP's Rockport plant was modeled (345/765 kV transformer required at Rockport). These studies showed multiple overloads with normal and contingency conditions.

The overloaded facilities included the 22.2 mile 161 kV circuit from Reid to Hopkins County (105%), the 30.7 mile 161 kV circuit from Coleman EHV to National Aluminum to Skillman to New Hardinsburg (123%), the 8 mile 161 kV circuit from Wilson to Green River (150%), and the 6.4 mile 161 kV circuit from Coleman to Newtonville (137%). In addition, the line loadings in the Green River plant area (Kentucky Utilities) should be analyzed.

(2) 750 MW Units Connected to Wilson and Paradise with a Coleman EHV to Rockport Interconnection With this scenario, one generating unit was connected to the 345 kV Wilson bus and one generating unit was connected to the Paradise 500 kV bus. The two units were also connected to each other creating a Wilson to Peabody to Paradise circuit. In addition, a 345 kV interconnection from Coleman EHV to AEP's Rockport plant was modeled (345/765 kV transformer required at Rockport). These studies showed multiple overloads with normal and contingency conditions.

The overloaded facilities included the 58.9 mile 161 kV circuit from Reid to Hopkins County to Barkley (140%), the 30.7 mile 161 kV circuit from Coleman EHV to National Aluminum to Skillman to New Hardinsburg (110%), the 8 mile 161 kV circuit from Wilson to Green River (192%), the 6.4 mile 161 kV circuit from Coleman to Newtonville (123%) and the 39.1 mile 345 kV circuit from Wilson to Coleman EHV (157% overload of terminal equipment). In addition, the line loadings in the Green River plant area (Kentucky Utilities) should be analyzed.

750 MW Connected to Wilson 345 kV, 750 MW Connected to Paradise 500 kV, a 345 kV OMU Interconnection and a 161 kV Wilson to Paradise Interconnection With this scenario, one generating unit was connected to the 345 kV Wilson bus and one generating unit was separately connected to the Paradise 500 kV bus (the units were not connected to each other). The Wilson to Coleman EHV 345 kV line was looped through the Owensboro Municipal Utilities (OMU) 345 kV Elmer Smith Station. In addition, two 161 kV Peabody to Paradise Interconnections were modeled (both tied to the Wilson connected Peabody unit).

The only Big Rivers overload identified was on the Wilson to Coleman EHV 345 kV line (Wilson to Smith portion). This limitation is due to terminal equipment (not a conductor limitation). Improvements necessary to eliminate this limitation should be reasonable. However, an overload of the Smith to Hardin (KU) 345 kV line was seen. In addition, heavy loadings were seen on the Wilson to Green River 161 kV interconnection (97%) during an outage of Wilson to Smith 345 kV circuit. This may result in overloads of the 138 kV and 161 kV systems in the Green River area.

Conclusion:

The last option (OMU 345 kV interconnection and Paradise 161 kV interconnections) seems to be the most promising alternative with respect to the Big Rivers system. Beginning the Detailed Interconnection Study with this interconnection option seems to be a reasonable next step. This detailed study will be completed by a consultant and should include input from OMU and LGE (KU). The Detailed Interconnection Study should include additional power flow studies (to more fully evaluate the alternative and its impact on other systems), stability studies, and short-circuit studies. Additional alternatives not included in the Feasibility Study may also be analyzed as part of the Detailed Interconnection Study.

5.4.3 BREC Regional Interconnection System Impact Study (February 26, 2003)

INTERCONNECTION STUDY

REPORT

Prepared for

Big Rivers Electric Corp.

Participating Utilities:

LG&E Energy Owensboro Municipal Utilities Tennessee Valley Authority

Prepared by



INTERCONNECTION STUDY

VOLUME 1 NOT PROVIDED TO THOROUGHBRED GENERATING COMPANY, LLC.

VOLUME I

Prepared for

Big Rivers Electric Corp.

Participating Utilities:

LG&E Energy Owensboro Municipal Utilities Tennessee Valley Authority

Prepared by



INTERCONNECTION STUDY

VOLUME 2 NOT PROVIDED TO THOROUGHBRED GENERATING COMPANY, LLC.

VOLUME II

Prepared for

Big Rivers Electric Corp.

Participating Utilities:

LG&E Energy Owensboro Municipal Utilities Tennessee Valley Authority

Prepared by



THOROUGHBRED

ENERGY

CAMPUS

INTERCONNECTION STUDY

REPORT

Prepared for

Big Rivers Electric Corp.

Participating Utilities:

LG&E Energy Owensboro Municipal Utilities Tennessee Valley Authority

Prepared by:



INTERCONNECTION STUDY

REPORT

Prepared for

Big Rivers Electric Corp.

Participating Utilities:

LG&E Energy Owensboro Municipal Utilities Tennessee Valley Authority

Prepared by R.D. Cook, P.E. T.L. Orloff

At the offices of Commonwealth Associates, Inc. P.O. Box 1124 Jackson, Michigan 49204-1124 February 26, 2003 Approved for submittal:

David A. Shafer, P.E. Manager, Electrical Systems

TABLE OF CONTENTS

REPORT

Secti	on	Page
EXE ASS	CUTIV UMPTI	TION
App.	endices	
APP	ENDIX	A EXHIBITS
I.	Prefe	erred Interconnection Plan
	A1	Comparison of Preferred Interconnection Plan With and Without MISO Generators and Base Case with MISO Generators to Base Case
	A2	Short Circuit Impacts
	A3	Short Circuit Detailed Results
	A4	Transient Stability Results for the Preferred Interconnection plan with MISO
	A5	Transient Stability Results for the Base Case with MISO
	A6	Transient Stability Results for the Base Case without MISO
	A7	List of Contingencies
	A8	Area Zone Report
	A9	MISO Region 11 and AEP Generators Included in Power Flow Models
	A10	Dispatch Used When including MISO Region 11 and AEP Generators
	A11	Overloaded Facilities for Preliminary and MISO Power Flow Studies
	A12	Rotor Models Used for Transient Stability - Type GENROU
	A13	Exciter Models Used for Transient Stability - Type EXST1
	A14	Governor Models Used for Transient Stability - Type GAST
	A15	Governor Model Used for Thoroughbred - Type TGOV1
	A16	Stable Generator Response for Fault at Wilson 345 kV
	A17	Generator Response for Fault at Wilson 345 kV with Stable and Unstable Clearing Times
TT	Duali	minamy Casa Studios

II. Preliminary Case Studies

A21 Impacted Facilities due to Interconnection Options I, IIA and III

Interconnection I

- A22 Comparison of Case 101 and Case 201 to Base Case
- A23 Comparison of Case 111 and Case 211 to Base Case with Loss of Brown N Unit #3

A24 Comparison of Case 121 and Case 221 to Base Case with Loss of Green River Unit #4

Interconnection IIA

- A25 Comparison of Case 141 and Case 241 to Base Case
- A26 Comparison of Case 151 and Case 251 to Base Case with Loss of Brown N Unit #3
- A27 Comparison of Case 161 and Case 261 to Base Case with Loss of Green River Unit #4

Interconnection III

- A28 Comparison of Case 171 and Case 271 to Base Case
- A29 Comparison of Case 181 and Case 281 to Base Case with Loss of Brown N Unit #3
- A30 Comparison of Case 191 and Case 291 to Base Case with Loss of Green River Unit #4

Area Losses for Preliminary Studies

A31 Area Losses in MW for Preliminary Power Flow Studies – Interconnections I, IIA and III

APPENDIX B DRAWINGS

- B1 Location of MISO and AEP Generators With Signed Interconnection Agreements (IA)
- B2 Identification of MISO and AEP Generators in North and South Groups
- B3 Thumbnail of MISO and AEP IA Generator Connections
- B4 Thumbnail of Interconnection Options I, IIA, and III
- B5 One Line of Contingencies

APPENDIX C BASE CASE MODEL DEVELOPMENT

- C1 8/24/01 Multiple Contingencies and Base Case Modifications from BREC
- C2 8/24/01 Data for Base Case Modifications from TVA
- C3 8/29/01 Multiple Contingencies and Base Case Modifications from OMU
- C4 8/30/01 Generation Dispatch for Base Case from BREC
- C5 9/4/01 Data for Base Case Modifications from LGEE
- C6 10/19/01 Contingency Changes for Base Case from BREC
- C7 11/5/01 Revised Line and Facility Ratings from LGEE
- C8 11/7/01 Revised Line Rating from BREC
- C9 3/12/02 Revised Line Rating Change from LGEE
- C10 4/3/02 MISO Involvement in Thoroughbred Project from Peabody
- C11 4/5/02 MISO Involvement in Thoroughbred Project from LGEE
- C12 05/02/02 Change in Generation Dispatch for Light Load Case from BREC
- C13 6/6/02 List of Generators with Signed Interconnection Agreements from MISO
- C14 5/17/02 Final Generator Stability Data from Peabody

VOLUME I

APPENDIX D TRANSIENT STABILITY RESULTS

- Figure A Change of Machine Angle in Degrees
- Figure B Machine Speed in Per Unit

Transient Stability Summary Charts

- D4 Transient Stability Results for the Preferred Interconnection plan with MISO
- D5 Transient Stability Results for the Base Case with MISO
- D6 Transient Stability Results for the Base Case

Preferred Interconnection Plan with MISO

- D11 Fault at Wilson on Wilson to Reid 345 kV Line Cleared at 6 Cycles
- D12 Fault at Wilson on Wilson to Reid 345 kV Line Critical Clearing, 8 Cycles
- D14 Fault at Wilson on Wilson 345/161 kV Transformer Critical Clearing, 12 Cycles
- D15 Fault at Wilson on Wilson to Green River 161 kV Line Cleared at 6 Cycles
- D16 Fault at Wilson on Wilson to Green River 161 kV Line Critical Clearing, 12 Cycles
- D22 Fault at Reid on Reid to Wilson 345 kV Line Critical Clearing, 18 Cycles
- D24 Fault at Reid on Reid 161/345 kV Transformer Critical Clearing, 11 Cycles
- D26 Fault at Reid on Reid to Daviess 161 kV Line Critical Clearing, 11 Cycles
- D28 Fault at Reid on Reid 69/161 kV Transformer Critical Clearing, 28 Cycles
- D32 Fault at Green River on Green River to Wilson 161 kV Line Critical Clearing, 16 Cycles
- D34 Fault at Green River on Green River 138/161 kV Transformer Critical Clearing, 15 Cycles
- D36 Fault at Green River on Green River to Green River Steel 138 kV Line Critical Clearing, 15 Cycles
- D38 Fault at Green River on Green River 69 /161 kV Transformer Critical Clearing, 11 Cycles
- D42 Fault at Coleman on Coleman to Smith 345 kV Line Critical Clearing, 25 Cycles
- D44 Fault at Coleman on Coleman 161/345 kV Transformer Critical Clearing, 13 Cycles
- D46 Fault at Coleman on Coleman to Hancock Co.161 kV Line Critical Clearing, 13 Cycles
- D52 Fault at Smith on Smith to Hardinsburg 345 kV Line Critical Clearing, 17 Cycles
- D54 Fault at Smith on Smith 345/138 kV Transformer Critical Clearing, 11 Cycles
- D56 Fault at Smith on Smith to Green River Steel 138 kV Line Critical Clearing, 12 Cycles
- D60 Fault at Montgomery on Montgomery to Davidson 500 kV Line Critical Clearing, 5 Cycles
- D70 Fault at Paradise at 500 kV Bus Critical Clearing, 6 Cycles
- D80 Fault at Thoroughbred on 500 kV Bus Critical Clearing, 7 Cycles
- D82 Fault at Thoroughbred on 345 kV Bus Critical Clearing, 9 Cycles

MISO Base Case

- D112 Fault at Wilson on Wilson to Reid 345 kV Line Critical Clearing, 17 Cycles
- D122 Fault at Reid on Reid to Wilson 345 kV Line Critical Clearing, 20 Cycles
- D132 Fault at Green River on Green River to Wilson 161 kV Line Critical Clearing, 16 Cycles
- D142 Fault at Coleman on Coleman to Wilson 345 kV Line Critical Clearing, 24 Cycles
- D152 Fault at Smith on Smith to Hardinsburg 345 kV Line Critical Clearing, 34 Cycles
- D160 Fault at Montgomery 500 kV Bus Critical Clearing, 7 Cycles

Base Case

- D211 Fault at Wilson on Wilson to Reid 345 kV Line Cleared at 6 Cycles
- D212 Fault at Wilson on Wilson to Reid 345 kV Line Critical Clearing, 15 Cycles
- D215 Fault at Wilson on Wilson to Green River 161 kV Line Cleared at 6 Cycles
- D216 Fault at Wilson on Wilson to Green River 161 kV Line Critical Clearing 11 Cycles
- D222 Fault at Reid on Reid to Wilson 345 kV Line Critical Clearing 20 Cycles
- D232 Fault at Green River on Green River to Wilson 161 kV Line Critical Clearing 16 Cycles
- D242 Fault at Coleman on Coleman to Wilson 345 kV Line Critical Clearing 25 Cycles
- D244 Fault at Coleman on Coleman 161/345 kV Transformer Critical Clearing 13 Cycles
- D252 Fault at Smith on Smith to Hardinsburg 345 kV Line Critical Clearing 33 Cycles
- D260 Fault at Montgomery 500 kV Bus Critical Clearing 6 Cycles

PREFERRED INTERCONNECTION PLAN

APPENDIX E	STUDY CASE C271s05 RESULTS
APPENDIX F	BASE CASE BC02LL RESULTS
APPENDIX G	STUDY CASE C271LL02 RESULTS
APPENDIX H	MISO BASE CASE BS05sMF RESULTS
APPENDIX I	MISO STUDY CASE C271s05MS RESULTS
APPENDIX J	MISO STUDY CASE C271s05MF RESULTS

VOLUME II

BASE CASES

APPENDIX E	BASE CASE BC05s01 RESULTS
APPENDIX F	BASE CASE BC05s11 RESULTS
APPENDIX G	BASE CASE BC05s21 RESULTS

PRELIMINARY POWER FLOW CASES INTERCONNECTION I

APPENDIX H	STUDY CASE	C101s05 RESULTS
APPENDIX I	STUDY CASE	C111s05 RESULTS

APPENDIX J	STUDY CASE C121s05 RESULTS
APPENDIX K	STUDY CASE C201s05 RESULTS
APPENDIX L	STUDY CASE C211s05 RESULTS
APPENDIX M	STUDY CASE C221s05 RESULTS

VOLUME III

INTERCONNECTION IIA

APPENDIX N	STUDY CASE C141s05 RESULTS
APPENDIX O	STUDY CASE C151s05 RESULTS
APPENDIX P	STUDY CASE C161s05 RESULTS
APPENDIX Q	STUDY CASE C241s05 RESULTS
APPENDIX R	STUDY CASE C251s05 RESULTS
APPENDIX S	STUDY CASE C261s05 RESULTS

INTERCONNECTION III

APPENDIX T	STUDY CASE C171s05 RESULTS
APPENDIX U	STUDY CASE C181s05 RESULTS
APPENDIX V	STUDY CASE C191s05 RESULTS
APPENDIX W	STUDY CASE C271s05 RESULTS
APPENDIX X	STUDY CASE C281s05 RESULTS
APPENDIX Y	STUDY CASE C291s05 RESULTS

INTRODUCTION

Peabody Energy has requested that they be allowed to interconnect the Thoroughbred Energy Campus, a planned 1,500-megawatt mine mouth, coal-fueled electric generating station in Muhlenberg County, Kentucky. One of the two proposed 750 MW generators is to be interconnected to the Big Rivers Electric Corporation (BREC) 345 kV Wilson Substation and the second 750 MW generator is to be connected to the Tennessee Valley Authority (TVA) 500 kV Paradise Substation. Since this project jointly impacts BREC, LG&E Energy (LGEE), Owensboro Municipal Utilities (OMU) and TVA, Commonwealth Associates, Inc. (CAI) was contracted by BREC to perform a joint Transmission Interconnection Study combining the interest of all the parties.

The preliminary studies investigated three interconnection concepts, as shown in the one-line drawing B4. Each concept included either one 750 MW generator connected to the 345 kV Wilson Substation or two 750 MW generators connected separately to the 345 kV Wilson Substation and to the 500 kV Paradise Substation.

EXECUTIVE SUMMARY

Power Flow Results

The base case power flow model was developed by modifying the 2005 Summer reference power flow model provided by the North American Electric Reliability Council (NERC), with facility and dispatch changes provided by the participating utilities, to represent conditions expected to be in place on the bulk power transmission system for the summer of 2005. The base case was analyzed under contingent conditions for a variety of base case and study case models to identify transmission facilities that are expected to become overloaded due to the introduction of the new generating station.

A preliminary analysis of these three interconnection options included power flow and short circuit studies. The results of these preliminary studies were jointly reviewed by CAI, Peabody Energy, and the participating utilities, and case 271 (Interconnection Option III) was selected as the preferred interconnection plan. A summary of the preliminary power flow results is shown in Appendix A, Exhibits A21 through A30. Results of the short circuit studies are summarized in Appendix A, Exhibits A2 and A3. Case 271 interconnects both Thoroughbred generators separately, as indicated above, utilizes an existing 345 kV branch circuit between Wilson and Coleman to be looped into Elmer Smith Station (OMU) and also includes a new 161 kV branch circuit between Wilson and Paradise. These new connections are identified in Exhibit B4 by the bold and dashed lines. This case will be referred to as the preferred interconnection plan for all further studies. While the preferred interconnection plan could initially be slightly more expensive than the other alternatives, Peabody Energy desires the most robust and cost effective interconnection.

The interconnection of the second generator connected to the 500 kV Paradise Substation was studied by TVA independently. TVA has forwarded its results to Peabody. Therefore impacts on TVA's system have not been studied in detail.

The new facilities that will be required for interconnecting the Thoroughbred generators in the preferred plan include five transmission lines: one 500 kV line, three 345 kV lines and one 161 kV line, these are shown in Appendix B, drawing B4. In addition, LGEE conducted an independent study (using their in-house model, which includes the underlying 69 kV system) under varying system load levels and determined that an existing 345 kV transmission line between Brown and Pineville should be energized (terminal work at both Brown and Pineville will be required to complete this).

Using the preliminary results of the power flow contingency analysis, the preferred plan was compared to the base case and 17 facilities in the BREC and LGEE systems were identified as being loaded to more than 100 percent of their emergency ratings. After the review of the initial results, ratings were increased on 15 transmission lines and two transformers. There will be costs associated with upgrading the 17 facilities in order to reach these limits. The upgrades may include improving terminal facilities and re-conductoring or re-sagging the transmission lines to eliminate the overloading. These 17 facilities are listed in the table at the end of the executive summary and in Appendix A, Exhibit A11; they are marked with an asterisk. The seven other facilities listed in Exhibit A11 had ratings increased after reviewing the power flow case that modeled the preferred interconnection plan with the MISO IA generators.

Fourteen of the Group 1 facilities (new overloads) shown in Exhibit A1 become overloaded due to either the addition of the MISO generators to the base case or the addition of the MISO generators to the preferred plan. Twelve are facilities in the TVA system, which includes ten transmission lines and two transformers. The other two facilities were one transformer in the Southern Indiana Gas and Electric (SIGE) system and one 161 kV transmission line in the Entergy Electric System (EES). Of these 14 facilities, the overloading on one TVA 500 kV line and one EES 161 kV line was eliminated when the MISO generators were added to the preferred interconnection plan. Overloaded facilities in the TVA system were not studied in greater detail since TVA conducted an independent study and has forwarded their results to Peabody Energy.

Area losses in the bulk power transmission system increased due to the addition of the new generators at the Thoroughbred Energy Campus. The increase in area losses for the preliminary studies when compared to the base case are shown in Exhibit A31. The area losses were reviewed by the participating utilities and were considered to be low; as a result the system losses should be evaluated using the more detailed 69 kV models that each utility has for its own system. The issue of system losses, and compensation for such, is usually addressed when the IPP makes a transmission service request with a particular utility.

Short Circuit Results

A short circuit study was conducted by constructing a short circuit model representing the preferred interconnection plan and including additional data associated with short circuit studies. The short circuit model was prepared by combining data provided by the participating utilities into one common short circuit model. The reference model used to develop the base case short circuit model was the 2005 Summer - 2000 Series, NERC/MMWG Base Case Library. The same facility and dispatch changes used in the 2005 Summer base case power flow model were used in the base case short circuit model

The short circuit study was performed by simulating faults on transmission facilities in the vicinity of the proposed new generator interconnection and determining the resulting fault current levels. The short circuits applied to this model include both three phase and single line to ground faults. A summary identifying the significant impacts of the fault current levels is shown in the chart in Exhibit A2.

The results of these preliminary short circuit studies were reviewed by the participating utilities and it was determined that at least six breakers in the LGEE system are inadequate for the short circuit requirements; five 138 kV breakers and at least one 69 kV breaker. Since the power flow model does not adequately model the underlying 69 kV system, additional studies will be completed as part of a facilities study.

Light Load Power Flow Results

All further studies focused on the preferred interconnection plan. A light load study was conducted to determine what affect the Thoroughbred project would have under light load conditions. The reference case for the light load model was the 2002 Light Load model provided by NERC. The same facility changes used for the 2005 Summer base case model were used in the light load model but the dispatch of generators in the BREC system was slightly different. Under a light load condition the utilization of the transmission system is different than with a summer peak condition. The light load study model was constructed by modeling the same facilities necessary for interconnecting the Thoroughbred generators in the preferred plan.

A power flow contingency analysis was performed and a comparison between the light load base case and the preferred interconnection plan showed no impacts due to overloaded facilities. There was, however, some concern that available transfer capability (ATC) may be constrained during periods of light load.

MISO Power Flow Results

The Midwest Independent System Operator (MISO) became involved in the project during April 2002 and identified 15 Independent Power Producers (IPP) that have signed Interconnection Agreements (IA) in the MISO generator interconnection request queue. The MISO recommended that these projects, located in MISO's Region 11, as well as AEP projects, be included in the studies for the Thoroughbred project. Without the inclusion of these projects the MISO was concerned that stability and short circuit reliability impacts on the AEP or MISO transmission systems would not be adequately addressed. MISO provided the data used for modeling the generators. The drawing in Appendix B, Exhibit B1 shows the probable location of the MISO generators. Exhibit B2 identifies the north and south group of generators modeled. The chart in Exhibit A9 lists the generators included in the MISO power flow models.

The 2005 Summer base case and preferred interconnection plan power flow models were modified to incorporate the 15 IPPs identified by the MISO. In addition, one IPP located in AEP's control area was also included. The AEP generator went into service in June 2002 and was not represented in the previous power flow studies.

Exhibit A1 compares four study models to the base case. The facilities shown in the bolded boxes identify facilities that become overloaded for each study case. The facilities shown in Group 1 are new overloads; the facilities shown in the box labeled A1 are new overloads due to the addition of the MISO generators to the base case. The facilities shown in the box labeled A1 & B1 are overloaded in both the MISO base case and the preferred interconnection plan with no MISO generators, and the five facilities shown in the box labeled B1 are new overloads due to the preferred interconnection plan with no MISO generators. The facilities contained in the box labeled C1 are new overloads due to the addition of just the south group of MISO generators to the preferred interconnection plan and the facilities in the box labeled D1 are due to the preferred interconnection plan, including the MISO generators. Two of the overloaded facilities shown in the box labeled C1 and the three overloaded facilities shown in the box labeled D1 on Exhibit A1 had ratings changed based on limits due to ground clearances and/or terminal limits. Exhibit A11 lists these facilities. They are shown without an asterisk, and also shown in the table at the end of the executive summary. All of the new impacts identified for BREC and LGEE were resolved through rating changes on the impacted facilities.

These MISO power flow studies identified four new Group 1 facilities due to the addition of the MISO generators to the base case and seven new Group 1 facilities due to addition of the MISO generators to the preferred interconnection plan, although five of these overloads were eliminated through facility upgrades. The addition of the MISO generators to the preferred plan eliminated overloading on two facilities; one 500 kV line and one 161 kV line.

Transient Stability Results

Transient stability is a study conducted to investigate the dynamic response of generators due to a fault or some other type of system disturbance near a generator. CAI identified the critical clearing time required for the protection system to clear the disturbance from the system. Faults that are not cleared from the transmission system before the critical clearing time will cause the generator to become unstable and eventually tripped off line. The charts in Exhibits A4 through A6 show the critical clearing times for several facilities near the Thoroughbred generators.

The figures shown in Exhibit A16 show stable responses for several generators due to a 345 kV fault at Wilson, which was cleared before reaching the critical clearing time. Exhibit A17 shows a stable response at the critical clearing time of 8 cycles and an unstable response with 9 cycle clearing, for the same 345 kV fault at Wilson.

Transient stability of a transmission system is studied by simulating faults, including switching operations caused by the protection systems of varying durations on branch circuits near a generator and observing specific generator parameters to determine when instability will occur. Faults are normally cleared from the transmission system by the operation of protective equipment such as relays and breakers.

The reference model used to develop the base case transient stability model was the 2003 Summer - 2001 Series, NERC/MMWG Base Case Library. The same facility and dispatch changes used in the 2005 Summer base case power flow model were used in the transient stability base case model. Transient stability models are constructed using generator dynamics parameters. The data used for modeling these components is shown in Exhibits A12 through A15. The generator

dynamics data is used together with the power flow program to arrive at a solution. Three transient stability models were constructed; a base case, a base case with the MISO generators, and the preferred interconnection plan with the MISO generators. The transient stability summary results are shown in Appendix D, Exhibits A4 through A6. The results for the preferred interconnection plan with the MISO generators are shown in Exhibit A4. Exhibits A5 and A6 are the results for base case with the MISO generators and the base case, respectively. These exhibits list the critical clearing times for all of the cases run. Only those facilities in close proximity to the Thoroughbred generators were studied. No instabilities were identified for primary clearing.

The participating utilities have reviewed the protection schemes for their transmission systems and have determined that the protection systems will operate to clear the faults before reaching the critical clearing time. This will prevent the generator from going into instability. Faults that are not cleared before this time will cause the generator to be tripped off line. Clearing a fault before reaching the critical clearing time can be accomplished by fast acting relays and breaker combinations

Summary

The power flow analysis for the preferred interconnection of the Thoroughbred generators, including the MISO IA generators, will require six new transmission lines, upgrades or replacements on 22 transmission lines and two transformers in the BREC and LGEE systems. In addition there are 12 overloaded facilities in the TVA system, one overload in the SIGE system, and one overload in the EES system. (These facilities are included for informational purposes only. Any upgrades ultimately required will result from a study prepared by TVA, MISO, or others.) One of the new 345 kV transmission lines was identified by LGEE after making its own independent study with the preliminary preferred interconnection plan under varying system load levels. The short circuit analysis identified six breakers that are inadequate for the fault current duty; five 138 kV breakers and one 69 kV breakers. Additional 69 kV breaker replacements could be identified during the facilities study process. The transient stability analysis identifies the critical clearing times required to avoid generator instability in close proximity to the Thoroughbred Energy Campus. The fault clearing times were reviewed by the participating utilities and no instabilities were noted.

New Facilities

D: 4

Location	Distance
Thoroughbred to Paradise Substation (TVA) 500 kV	8 miles
Thoroughbred to Wilson Substation (BREC) 345 kV	10 miles
Wilson (BREC) to Smith (OMU) 345 kV	9 added miles
Coleman (BREC) to Smith (OMU) 345 kV	9 added miles
Wilson (BREC) to Paradise (TVA) 161 kV	15 miles
Brown to Pineville (LGEE) 345 kV	Terminal Facilities

Overloaded Facilities

Branch Circuit	Old Normal	Rating Emergency	New Normal	Rating Emergency
Big Rivers Electric Corporation				
*Wilson to Coleman 345 kV	598	598	956	956
LG&E Energy				
*Baker Lane to Brown N 138 kV	205	216	224	277
*Earlington N to River Queen Tap 161 kV	184	184	209	257
*Eastview to Stephensburg 69 kV	42	42	56	68
*Elizabethtown to Tharp 69 kV	72	79	90	111
*Green River Steel 138-69 kV Transformer	93	102	93	107
*Green River Steel to OMU 69 kV	72	86	146	181
*Green River to Ohio County 138 kV ckt 1	143	158	179	220
*Green River to Ohio County 138 kV ckt 2	143	158	179	220
*Green River to River Queen Tap 69 kV	55	55	89	110
*Leitchfield 138-69 kV Transformer	72	79	93	107
*Leitchfield to Shrewsbury 138 kV	82	82	179	220
*Newtonville to Cloverport 138 kV	143	143	162	199
*Ohio County to Shrewsbury 138 kV	165	165	179	220
*Smith to Hardin County 345 kV	275	308	1195	1315
*Adams to Tyrone 138 kV	97	97	179	220
Arnold to Delvinta 161 kV	113	113	167	201
Artemus to Farley 161 kV	142	142	209	257
Artemus to Pineville 161 kV	129	129	176	201
Delvinta to West Irvine Tap 161 kV	142	142	176	201
Ghent to Owen County Tap 138 kV	227	227	227	280
Green River Steel to Smith 138 kV	241	241	287	287
Lake Reba Tap to West Irvine Tap 161 kV	165	165	167	223
East Kentucky Power Cooperative				
*Stephensburg to Upton Junction 69 kV	19	19	45	54

Breakers Inadequate for Short Circuit Requirements

Substation	Base kV	Quantity
LG&E Energy		
Green River Substation	69 kV	1
Green River Substation	138 kV	1
Green River Steel Substation	138 kV	4

^{*} Facilities with an asterisk were revised after the preliminary power flow studies Facilities without an asterisk were revised after the MISO power flow studies Overloaded facilities requiring upgrades in TVA, SIGE, and EES systems are not shown in this table

ASSUMPTIONS AND CRITERIA

Power Flow Models

The following planning criterion is used to evaluate the power system:

- Normal System Conditions (NS)
 - Loading on transmission lines and transformers should be less than 100 percent of their normal ratings
 - Bus voltages should be no less than 95 percent or greater than 105 percent of nominal
- Single Contingency Conditions
 - Loading on transmission lines and transformers should be less than 100 percent of their emergency ratings
 - Bus voltages should be no less than 90 percent or greater than 105 percent of nominal

Single contingency conditions are defined as the outage of any single transmission facility. The contingencies used to study the system include outages of all of the bulk power transmission lines and transformers (100 kV and above) in a wide neighborhood around the new generation site. This study included 376 single-contingencies that are depicted in the one-line of contingencies, Appendix B, Drawing B5. Two of the single-contingency outages involve multiple elements of three winding transformers located at Montgomery and Hopkinsville Stations in TVA. The 11 multiple contingencies include the simultaneous outage of a generating unit and a transmission facility. A complete list of the contingencies can be found in Appendix A, Exhibit A7. The monitored facilities include the contingent facilities plus all facilities within a four-bus ring around the contingency set.

Short Circuit Models

The criteria used in evaluating short circuit studies is that for a bolted fault (i.e., zero fault impedance), currents seen by the breakers must be less than the breaker rating. The simulated short circuit could be either a three phase or a single line to ground fault.

Transient Stability Models

Criteria used in determining the transient stability of a transmission system demand that the generator not lose synchronism with the electrical system during a transmission line or transformer fault condition which causes the circuit element to be taken off line in order to clear the fault. Transient stability of a transmission system is studied by simulating a fault of varying duration near a generator bus and observing particular generator parameters to determine the time at which instability will occur. In these studies the disturbance simulated was a three phase to ground fault. The time before which a disturbance must be cleared is referred to as the critical clearing time. Faults are normally cleared from the transmission system by the operation of protective equipment such as relays and breakers.

The participating utilities have reviewed the protection schemes for their transmission systems and have determined that their systems can operate to clear the fault before reaching the critical clearing time. This will prevent the generator from unstable operation and tripping off line.

STUDY METHODOLOGY

The power flow study was conducted using CAI's TRANSMISSION 2000[®] Power Flow (PFLOW) program and its associated Contingency Processor (CP). CP is an automated tool that controls the power flow contingency calculation and summarizes the results. Summary reports for each case are contained in the detailed power flow results found in Volumes I, II, and III, as provided to each of the participating utilities. These include the following reports:

- Overload Summary Report all overloaded facilities and the number of times overloaded
- Normal System Overload Summary Report
- Undervoltage Summary Report
- Overvoltage Summary Report
- Contingency Summary Report each contingency and all overloads it causes
- Contingency List
- Various other summary reports

Detailed reports of the results from the most recent studies involving Interconnection Option III, the preferred interconnection plan, are contained in Volume I, Appendices E through J. Preliminary base case studies and studies involving Interconnection I are contained in Volume II, Appendices E through M. Preliminary results from studies involving Interconnections IIA and III are contained in Volume III, Appendices N through Y.

In addition to the summary reports, CAI also prepared a comparison analysis of impacted facilities. Exhibit A1 shows comparisons between the base case, the preferred interconnection plan without MISO, and three study cases:

- Case C271s05 is the preferred interconnection plan, which includes facility rating changes and includes no MISO or AEP IA generators
- Case BS05sMF is the MISO base case with all MISO and AEP IA generators
- Case C271s05MS is the preferred interconnection plan including only the south group of MISO generators, see drawing B2
- Case C271s05MF is the preferred interconnection plan with all MISO and AEP IA generators

The comparisons against the base case were conducted for the above series of cases, and included the base case with the MISO generators and the preferred interconnection plan with and without the MISO generators. The two corresponding study models, representing the loss of a generator in the LGEE system were not modeled for these MISO power flow studies because facilities that were overloaded in these corresponding study cases were the same facilities that were overloaded in the preferred interconnection plan when compared to the base case.

To provide an efficient means for evaluating comparable cases, overloaded facilities are grouped in these exhibits in order of worst overloads at the top of Group 1, to less significant overloads at the bottom of Group 2. These groups are described as follows:

- Group 1 New Overloads (new generation caused an overload)

 Group 1 facilities are those that are overloaded in one or more of the study cases but were not overloaded in the base case. The overloads on these facilities are attributed to the additions made in the study cases (i.e., one or two 750 MW generators at the Thoroughbred Energy Campus). We will look closely at these overloaded facilities (i.e., further study) to determine causes and mitigation in Phase 2 of this study.
- Group 2 Pre-existing with increased overloading caused by the new generation

 Group 2 facilities are those that are overloaded in the base case and the study cases but showed an increased overloading in the study cases. Depending upon the magnitude of the change and the number of contingencies that cause these facilities to overload, these facilities may or may not require mitigation.

Preliminary Power Flow Study

The reference case used to develop the base case model was the 2000 Series, NERC/MMWG Base Case Library - 2005 Summer. The base case model (BC05s01) incorporates the dispatch and facility changes submitted by the participating parties, shown in Appendix C, Exhibits C1 through C14. The impedance of the various new transmission lines used to interconnect the Thoroughbred generators were calculated based on data from EPRI's "Transmission Line Reference Book 345 kV and Above" (Red Book), dated 1975.

Two additional base case models were developed to represent the loss of two different generating units in two different locations in the LGEE system. Base case model BC05s11 represents the loss of Brown N Unit # 3 generator (441 MW), and BC05s21 represents the loss of Green River Unit # 4 generator (104 MW). In this series of base case models, generation is dispatched (bought) equally from three utilities in the north only; American Electric Power (AEP), AMEREN, and CINergy (CIN). Analysis of these study models was only performed for the preliminary cases represented in interconnection options I, IIA, and III. See Appendix B, Exhibit B4.

Listed below are the assumed distances between the Thoroughbred Energy Campus and the interconnection points.

Interconnection Point	Line Length
Wilson Substation (BREC) 345 kV	10 miles
Paradise Substation (TVA) 500 kV	8 miles

In these study cases, the first Thoroughbred Energy Campus generating unit is connected into the 345 kV Wilson Substation (BREC) using a double circuit transmission line. The second generator is connected into the 500 kV Paradise Substation (TVA) using a 500 kV transmission line (a three conductor bundle). Both generators are connected into the bulk power transmission system via generator step-up transformers (GSU).

For these preliminary studies, a set of nine power flow models was created; three base case models and six study case models. The Thoroughbred Energy Campus generators were individually connected into BREC and also into TVA. The cases are titled as follows:

Base Case Models – Without Thoroughbred Energy Campus Generators

- Case BC05s01 Base Case with facility upgrades 2005 Summer
- Case BC05s11 Same as Case BC05s01 with the loss of Brown N Unit # 3 441 MW
- Case BC05s21 Same as Case BC05s01 with the loss of Green River Unit # 4 104 MW

Interconnection I – Original Scope

1-750 MW Plant – Cases 101, 111, and 121

- Case 101 Interconnected at 345 kV to Wilson Substation (BREC)
- Case 111 Same as Case 101 with the loss of Brown N Unit # 3 441 MW
- Case 121 Same as Case 101 with the loss of Green River Unit # 4 104 MW

2-750 MW Plants – Cases 201, 211, and 221

- Case 201 Same as Case 101 with a second 750 MW generator individually connected at 500 kV to Paradise Substation (TVA)
- Case 211 Same as Case 201 with the loss of Brown N Unit # 3 441 MW
- Case 221 Same as Case 201 with the loss of Green River Unit # 4 104 MW

Based on the results of the above series of cases, 101 and 201, two alternative interconnections of the Thoroughbred Energy Campus were proposed (not in the original scope for this project). See Appendix B, Drawing B4 for Interconnections IIA and III.

- Interconnection IIA interconnects one 750 MW generator into the 161 kV transmission system at three sites: Wilson Substation (BREC), Green River Substation (LGEE), and Paradise Substation (TVA)
- Interconnection III is a variation of Interconnection I. The Thoroughbred Energy Campus generator is connected at 345 kV to Wilson and the existing 345 kV line between Wilson and Coleman is looped into OMU's Elmer Smith Station. A new 161 kV branch circuit is added between Wilson and Paradise

For the 200 series of cases, the second 750 MW generator is always interconnected to the 500 kV Paradise Substation. Twelve preliminary study models were developed and are described below:

Interconnection IIA – Three Interconnections at 161 kV

1-750 MW Plant – Cases 141, 151, and 161

 Case 141 – Modify Case 101 by removing the 345 kV connection between Wilson and the Thoroughbred Energy Campus and connecting the 750 MW generator into the 161 kV transmission system at three sites; Wilson Substation (BREC), Green River Substation (LGEE), and Paradise Substation (TVA)

- Case 151 Same as Case 141 with the loss of Brown N Unit # 3 441 MW
- Case 161 Same as Case 141 with the loss of Green River Unit # 4 104 MW

2-750 MW Plants – Cases 241, 251, and 261

- Case 241 Modify Case 201 by removing the 345 kV connection between Wilson and the Thoroughbred Energy Campus and connecting the 750 MW generator into the 161 kV transmission system at three sites; Wilson Substation (BREC), Green River Substation (LGEE), and Paradise Substation (TVA)
- Case 251 Same as Case 241 with the loss of Brown N Unit # 3 441 MW
- Case 261 Same as Case 241 with the loss of Green River Unit # 4 104 MW

Interconnection III – Interconnection to Wilson at 345 kV with Three Additional Circuits

1-750 MW Plant – Cases 171, 181, and 191

- Case 171 Modify Case 101 by looping the existing 345 kV Wilson to Coleman line into Elmer Smith Station (OMU), plus add a new 161 kV branch circuit between Wilson and Paradise
- Case 181 Same as Case 171 with the loss of Brown N Unit # 3 441 MW
- Case 191 Same as Case 171 with the loss of Green River Unit # 4 104 MW

2-750 MW Plants - Cases 271, 281, and 291

- Case 271 Modify Case 201 by looping the existing 345 kV Wilson to Coleman line into Elmer Smith Station (OMU), plus add a new 161 kV branch circuit between Wilson and Paradise
- Case 281 Same as Case 271 with the loss of Brown N Unit # 3 441 MW
- Case 291 Same as Case 271 with the loss of Green River Unit # 4 104 MW

In each of the 18 preliminary study cases and the two light load models, the new generator output is dispatched (sold) equally to six utilities; three in the north (AEP, AMEREN and CIN), and three in the south (Duke Power [DUK], Southern Company [SOCO] and Florida Power & Light [FPL]).

All of the detailed results from these preliminary power flow study cases can be found in Volumes II and III. Volume II, Appendices E through M, contains the detailed results for the preliminary power flow cases identified in the original scope, Interconnection Option I. Volume III, Appendices N through Y, contains the detailed power flow results for Interconnection Options IIA and III. Volumes II and III have only been supplied to the participating utilities.

The interconnection of the second generator at the 500 kV Paradise Substation was studied by TVA independently and TVA has already forwarded its results to Peabody. Therefore impacts on the TVA system have not been studied in as great detail.

Appendix C in the report contains the details of the modifications for the reference model as provided by the participating utilities, and is contained in Exhibits C1 through C14. The reference model used for the power flow studies was the 2000 Series, NERC/MMWG Base Case Library Model - 2005 Summer.

After these preliminary studies were performed the preferred interconnection option selected for all further studies was case 271. This preferred interconnection plan includes one Thoroughbred generator connected to the 345 kV Wilson Substation and the second to the 500 kV Paradise Substation. It also includes an additional circuit that takes the existing 345 kV Wilson to Coleman line and loops it into the Elmer Smith Station (OMU). It also incorporates a new 161 kV line between Wilson and Paradise Substations (see Appendix B, Drawing B4).

Volume I contains the results of the most recent studies conducted for the Thoroughbred Energy Campus. The power flow results contained in this volume are for the base case with the MISO generators, the preferred interconnection plan with and without the MISO generators and the light load study cases. Volume I has been supplied only to the participating utilities.

Based on the preliminary results of the power flow studies that include the MISO and AEP IA generators, the participating utilities identified rating changes on several facilities located in the BREC and LGEE systems. The ratings were changed based on limits due to ground clearances and/or terminal limits (see Exhibit A11). The changes in the facility ratings were reflected in the case comparison summary charts shown in Exhibit A1, but the detailed power flow results contained in Volumes II and III were not rerun and do not reflect these facility changes as related to the addition of the MISO generators.

Detailed power flow results of the cases that incorporated the MISO IA generators are included in Volume I, Appendices E through J. Volume I has been provided only to the participating utilities.

A normal system and first contingency analysis was performed using CAI's TRANSMISSION 2000[®] Contingency Processor (CP). The contingency list is generated automatically, but multiple contingencies, provided by the participating utilities, were added manually.

There were a total of 376 contingencies of which 365 are single element contingencies and 11 are multiple element contingencies. The contingency set is listed in Appendix A7 and includes 291 buses. The contingencies (outages) were evaluated for the three base cases and 18 preliminary study cases. Nine of the multiple element outages include both a generator outage and transmission facility outage; these contingencies are not included in the analysis for the models that include a generator outage (i.e., Brown N Unit # 3 or Green River Unit # 4) since these models already include a generator outage.

The monitored region includes 2859 buses and covers 29 utility areas. The Area and Zone report, shown in Appendix A, Exhibit A8, shows the number of contingent and monitored buses included in this study. When the 15 Region 11 MISO and AEP IA generators were included in the power flow model, the monitored region contained 2865 buses.

Area losses in the bulk power transmission system increased due to the addition of the new generators at the Thoroughbred Energy Campus. The increase in area losses for the preliminary studies when compared to the base case are shown in Exhibit A31. The area losses were reviewed by the participating utilities and were considered to be low; as a result, the system losses should be evaluated using the more detailed 69 kV models that each utility has for its own system. The issue of system losses is addressed when the IPP makes a transmission service request with a

particular utility. The affected utilities will determine the expected increase in losses and will factor those costs into the transmission service request.

Short Circuit Study

The short circuit study was conducted using the TRANSMISSION 2000[®] Short Circuit (SC) program. The reference model used for this study was the 2005 Summer - 2000 Series, NERC/MMWG Base Case Library. The short circuit models were prepared using data received from the participating utility companies. Since this study covers several regions, it was necessary to combine the short circuit data into one common model. Each utility provided its own short circuit models for this study. The additional data needed for short circuit studies was incorporated from the power flow model used in the preliminary studies. Since the data came from three different sources it was decided to convert the bus numbers and names to conform to those in the existing power flow model.

Summaries of the short circuit results for these preliminary cases are contained in Appendix A, Exhibit A2 and A3. These charts list all facilities whose fault current levels increased by between 0 and 10 percent, when compared to the base case. The utilities reviewed the results and identified breakers that were insufficient for the fault current levels. One 69 kV breaker and five 138 kV breakers were identified as exceeding their ratings. These breakers will probably need to be upgraded or replaced. In addition, since the power flow model does not adequately represent the underlying 69 kV, additional breakers could require replacement.

Light Load Power Flow Study

A light load study model was conducted to determine what affect the Thoroughbred project would have under light load conditions. The reference model used to develop the base case light load model was the 2001 Series, NERC/MMWG Base Case Library, 2002 Light Load Case, Trial #7. The same facility changes provided by the utilities for the 2005 Summer Base Case model were used to create the light load base case model (case BC02LL). Per instructions from the utilities, the generation dispatch used in this model is slightly different than that used in the 2005 Summer studies.

Since case C271s05 was selected as the preferred interconnection plan, this was the only study case modeled for the light load condition (case C271LL02). The interconnection and generation dispatch for the Thoroughbred Energy Campus for the light load study model is identical to case C271s05. Light load study models corresponding to the loss of a generating unit in the LGEE system were not studied.

A contingency analysis was conducted using CAI's TRANSMISSION 2000[®] Contingency Processor (CP). The contingencies (outages) involved 359 contingencies, including eight multiple contingencies and 290 buses. Contingencies for the light load models were evaluated for the base case and study case only. The monitored region included 2743 buses, covering 27 utility areas. The Area and Zone report shown in Exhibit A8 lists the number of contingent and monitored buses used in this study for each of the 27 utilities and also shows zone data, which utilities use to define groups of circuits internal to their own system. Detailed power flow results and case comparisons are contained in Volume I, Appendices F and G.

The result of the comparison between the light load base case and the study case showed no impacts due to overloaded facilities. There was, however, some concern that available transfer capability (ATC) may be constrained during periods of light load. Using their in-house power flow model (including their underlying 69 kV system), LGEE conducted its own independent study based on the preliminary preferred interconnection plan. They reported the following findings; "We have conducted a power flow analysis on Case 271 at varying LG&E Energy system load levels and have found that for load levels in the range of 70%-95% of system peak, we expect the maximum allowable generation at Brown to decrease by 50 to 150 MW due to the Thoroughbred generators. The limit is the flow on the Brown Plant to Fawkes 138 kV line due to an outage of the Brown-Alcalde-Pineville 345 kV line. Also, because this flow is dependent on the level of generation at East Kentucky Power Cooperative's (EKPC) JK Smith plant, the magnitude of the impact could be more severe if EKPC buys off-system rather than dispatching these units."

LGEE made a recommendation for correcting this limitation on the Brown plant generation level. "The limitations at Brown due to Thoroughbred can be eliminated by energizing the Brown to Pineville 345 kV line. This line is currently in place, but requires terminal facilities at both Brown and Pineville in order to allow energization. Energization of this line would return the maximum allowable generation at Brown to at least the level we expect if Thoroughbred is not constructed. This would be a requirement if Option III is adopted." This one 345 kV new transmission facility will be required for the preferred interconnection of the Thoroughbred generators.

MISO Power Flow Study

The MISO became involved in the project during April 2002 and identified 15 Independent Power Producers (IPP) that have signed Interconnection Agreements (IA) in their generator interconnection request queue. The MISO recommended that these projects (located in MISO's Region 11), as well as AEP projects, be included in the studies for the Thoroughbred project. Without the inclusion of these projects the MISO was concerned that stability and short circuit reliability impacts on the AEP or MISO transmission systems would not be adequately addressed.

Since study case C271s05 was selected as the preferred interconnection plan, all further power flow studies were modeled with the Thoroughbred Energy Campus connected as shown in Drawing B4, for case C271s05. Case C271s05 represents Interconnection Option III and includes two 750 MW Thoroughbred generators, one connected to 500 kV at the Paradise Substation (TVA), and the other to 345 kV at the Wilson Substation (BREC), with the existing 345 kV circuit between Wilson and Coleman looped into OMU's Elmer Smith Station. This model also includes an additional new 161 kV branch circuit between Wilson and Paradise Substations.

MISO provided the data used in modeling the IA generators. The chart in Exhibit A9 lists the 15 MISO Region 11 and AEP generators used in the MISO power flow models. It also includes information about the generator control area, location, generator bus number, MISO queue number and queue date, high side bus number and base voltage, and the interconnection status. The 15 IPPs identified by the MISO are expected to be on-line and producing power prior to the completion of the Thoroughbred Energy Campus project.

Drawing B1 shows the probable relative location of the 15 MISO generators on the bulk power transmission system. Each generator is identified with a circle and labeled with the generator numbers provided by MISO. Within the circle is the generation dispatch used in these models, including the MISO generators and the interconnection status of the generator.

The two corresponding study models, representing a loss of a generator in the LGEE system, were not modeled for these power flow studies that include the MISO generators because facilities that were overloaded in these corresponding study cases were the same facilities that were overloaded in the preferred interconnection plan when compared to the base case.

The 15 IPPs identified by MISO were incorporated into both the 2005 Summer Base Case model and the preferred interconnection models. One IPP located in AEP's control area was also included. The AEP generator went into service in June 2002, and was not represented in the previous power flow studies. Three study models were created and include the addition of the MISO IA generators. In these power flow models, the generation is dispatched (sold) equally to six utilities; the three utilities in the south were the same ones used in the previous studies, but dispatch to utilities in the north changed to PJM, Consumers Energy (Cons), and Northern Indiana (NI). Generation dispatch to the north was changed because several of the IPP generators are located in the CINergy control area. The dispatch to the north in the preliminary power flow models was to CINergy, AMEREN, and AEP.

These two MISO power flow models, the base case (BS05sMF) and the preferred interconnection plan (case C271s05MF), incorporate the same generation dispatch and facility changes provided by the participating utilities for the 2005 Summer Base Case. The data used for modeling the MISO generators was provided by MISO. The data used for modeling the AEP generator was provided by C. Bradley of BREC. This AEP generator was not included in the MISO model or previously modeled in the study cases. This AEP generator is request number 21 in the AEP generator interconnection request queue.

The MISO generators were connected into the power flow model as shown in thumbnail Drawing B3. The net change in generation dispatch is shown in Exhibit A10 and is also depicted in Drawing B1. Since the generators in closer proximity to the Thoroughbred Energy Campus have more potential to influence the power flow than those in the north group, the 15 MISO generators were lumped into two groups, shown in Drawing B2, identifying the north and south groups of MISO generators. The south group of MISO generators includes 11 generators. The north group includes four MISO generators and the one AEP generator.

The preferred interconnection plan with the MISO generators was constructed by modifying case 271 to include all the MISO generators listed in Exhibit A9. This MISO power flow model was built in three steps; first, all generators were added to the model with their generation level set to zero output. Second, the 11 generators in the MISO south group (case 271s05MS) were placed on-line with the net change in generation dispatch as indicated in the circle in Drawing B1 (it is also listed in the chart in Exhibit A10). In the final step, generators identified in the MISO north group were added in the same manner so that all of the IPP generators with signed interconnection agreements identified by MISO and the AEP generator are in the final MISO power flow model (case 271s05MF). The base case model with the MISO generators was prepared in the same way (case BS05sMF).

A contingency analysis was conducted on these MISO power flow models using CP. The contingency set includes a total of 375 contingencies, with 11 being multiple contingencies and involving 291 buses. The contingencies were evaluated for both the MISO base case (case BS05sMF) and the preferred interconnection plan with all the MISO generators (case C271s05MF). The monitored region contained 2865 buses covering 29 utility areas. The Area and Zone report shown in Exhibit A8 lists the number of contingent and monitored buses for each utility area and also shows zone data, which utilities use to define groups of circuits internal to their own systems.

Preliminary results of the MISO power flow study were presented to the participating utilities and resulted in rating changes on seven additional facilities in the LGEE system. The ratings were changed based on limits due to ground clearances and/or terminal limits shown in Exhibit A11 with no asterisk. The revised ratings reduced the number of new overloads (Group 1 facilities) and the loading on the circuits shown in Exhibit A1 reflects the rating increases. This exhibit identifies all new overloads resulting from the addition of the 15 MISO generators to both the base case (BS05sMF) and the preferred interconnection plan (case C271s05MF). This exhibit compares four study cases, with and without the MISO generators, to the 2005 Summer Base Case.

A comparison of the MISO base case model to the 2005 Summer Base Case identified nine new overloads (Group 1 facilities) and five pre-existing overloads that were made worse (Group 2 facilities). These nine Group 1 facilities are shown in the box labeled A1. The five Group 2 facilities are shown in the box labeled A2.

A comparison of the preferred interconnection plan with no MISO generators to the 2005 Summer Base Case also identified nine new overloads (Group 1 facilities) and five pre-existing overloads that were made worse (Group 2 facilities). Four of the nine Group 1 facilities are already overloaded in the MISO Base Case and are shown in the boxes labeled A1 and B1. The other five Group 1 facilities are new overloads resulting from the preferred interconnection plan with no MISO generators and are in the box labeled B1. Three of the five Group 2 facilities are already overloaded in the MISO Base Case but two new facilities overload due to the preferred interconnection plan with no MISO generators and are shown in the box labeled B2.

A comparison of the preferred interconnection plan with only the south group of MISO generators to the 2005 Summer Base Case identified two new overloads (Group 1 facilities) and no new pre-existing overloads that were made worse (Group 2 facilities). These facilities are shown in the box labeled C1. Two of the four facilities were overloaded before the ratings were changed to reflect maximum ground clearances or improved terminal facilities. The facilities are shown in Exhibit A11. Facilities in Exhibit A1 that have had their ratings changed, after including the MISO generators, are indicated by an asterisk.

A comparison of the preferred interconnection plan with all the MISO generators to the 2005 Summer Base Case, identified 12 new overloads (Group 1 facilities) and six pre-existing overloads that were made worse (Group 2 facilities). Seven of the 12 new overloads and five of the six pre-existing overloads are also identified as being overloaded in the MISO Base Case. The facilities in the box labeled D1 were overloaded, but after the ratings were changed they were

no longer overloaded. The five new Group 1 overloaded circuits are shown in the two sections of facilities shown above the box labeled D1 in Exhibit A1. Three Group 1 facilities outlined in grey boxes indicates that loading was reduced due to the addition of the Thoroughbred project to the base case, with the MISO generators and the Group 1 facilities shown with a cross-hatched background indicates reduced loading due to the addition of the MISO generators to the preferred plan.

A light load power flow model representing the preferred interconnection plan with the MISO and AEP IA generators was not studied. It is expected that most, if not all, of the new generators would not be base load units and therefore would not be operating under light load conditions.

Transient Stability Power Flow Study

The transient stability study was conducted using CAI's TRANSMISSION 2000[®] Transient Stability (TS) program. The reference model used for developing the transient stability power flow model was the 2001 Series, NERC/MMWG Base Case Library, 2003 Summer Case, Trial #9 (PLI). The generation dispatch and facility changes already provided for the 2005 Summer Base Case model were used to develop the transient stability base case model (case TS03s1aT1). Transient stability is a study conducted to investigate the dynamic performance of generators under fault conditions, and to determine the time at which a generator will go into instability due to the disturbance.

Critical clearing time is the time before which a disturbance must be cleared by the protection system in order to maintain stable operation. Faults that are not cleared from the system before this time will cause the generator to become unstable and to be tripped off line. Transient stability of a transmission system is studied by simulating faults of varying durations on transmission facilities located near a generator and observing specific generator parameters to determine when instability will occur. Faults are normally cleared from the transmission system by the operation of protective equipment such as relays and breakers. In these studies the disturbance simulated is a three-phase fault.

Three transient stability models were constructed; a base case, a base case with the MISO generators, and the preferred interconnection plan with the MISO generators. Since generator dynamics data for the MISO generators was not available, sample data was used to represent the power system components, including a model for a classical round rotor synchronous machine, an exciter model, and a governor model. The data used for modeling these components is shown in Exhibits A12 through A15. The generator dynamics data is used along with the power flow model to form a complete dynamics model. The transient stability model also requires each generator to be connected by a generator step-up transformer (GSU). If a generator was already modeled with a GSU the existing data was used. Otherwise impedance values for the GSU were calculated based on the generator maximum active power and maximum reactive power values.

The transient stability base case model was modified to include the 15 MISO generators. This model was built in three steps; all the generators were modeled with zero output, next the south group of MISO generators were placed online with the net change in generation dispatch as indicated in the circle shown in the drawing in Exhibit B1 (also listed in the chart in Exhibit A10), and finally the north group of MISO generators were placed online and dispatched in the same

fashion (case TS03s1aMF). This represents the MISO Final Transient Stability model for 2003 Summer. The generation was dispatched to the six utilities as previously indicated for the MISO power flow models, then the MISO base case model was modified to include the facilities needed for the preferred interconnection of both 750 MW Thoroughbred generators as shown in Exhibit B4 (case TS03s1aMFth). The generation from the Thoroughbred units was dispatched (sold) to the same six utilities used in the preliminary power flow studies.

The results of the transient stability study are summarized in the tables shown in Appendix A, Exhibits A4, A5, and A6. The results for the preferred interconnection plan with the MISO generators are shown in Exhibit A4. Exhibits A5 and A6 are the results for the MISO base case model and the base case model, respectively. These exhibits list the critical clearing times for the facilities in close proximity to the Thoroughbred generators. The graphs in Appendix D, Exhibits D11 through D260 show the dynamic response of the generators for a three-phase fault applied to a transmission facility. The graphs show the change in machine angle and speed resulting from the disturbance for the generator near the fault. For each fault studied the graph identifies the critical clearing time at which generators will go into instability.

The participating utilities reviewed the protection schemes in their transmission systems and determined that it will operate within these parameters to prevent the generators from going into an unstable condition. This is accomplished by fast-acting relay and breaker combinations.

APPENDIX A EXHIBITS

Thoroughbred Energy Campus

Case 271 has 2-750 MW Thoroughbred Generators Connected at 500 kV and at 345 kV with a 345 kV Loop into Smith Staton
Base Case Compared to Study Cases With and Without Case 271 and
With and Without the MISO and AEP IA Generators
All Cases are 2005 Summer

Branches Exceeding 100% of Emergency Rating	l.≌′	g 100% of E	mergenc	y Rating	E			Ratings		Base Case	9 7	005 Summer First Contingency	r Jencv	Base C	Case With All MISO Gens	All MISO Gens First Contingency	Gens	1 - 1	271 Withc	C271 Without MISO Gens	t MISO Gens First Contingency	ပိ	71MS With		ISO South Gens First Contingency	Con	S271MF With		Ontingenc
From Name To Name New Overloads		Name		Ckt	Base kV Area		Zone	Norm	Jer	Sys	<u> </u>	6 Emer % A Overloaded	/ B	_	_	Emer %	A / B	₽	System%	Emer %	A / B	П	System%		A / B	П			Emer % A / B
SSMYRNA 19527 SLEBANON 18914	19527	BLCK	IMN >		161	147	166			-						A1 106.3 102.7		4367	65.0	A1 & B1 109.1 104.6			67.6	113.8	/ 1			116.3	1 / /
18744 SMURTHERE 19927 BELCKININI 18684 SINTERCH 19083 5HURRICA 18007 SMARSHAL 18497 SMAYFIEL 28673 10DUBOIS 28673 10DUBOIS 18422 BJVILLE 18430 BBAVIDSO 18642 5GUNT HP 18024 3GUNTERV		BLCKN HURRI MAYFI SDUBC SUNTI	₩SSE \$		161 161 161 69-138 500 161-115			235 23 320 3 307 3 112 1 1732 1;	235 438 320 444 307 13 117 114 30 -	4367 51. 4452 57. 137 60 1140 46. 57 42.	51.0 92.3 57.0 96.1 60.1 92.0 46.2 98.0 80.5 —	92.3 96.5 92.6 93.6 93.6	000000	4367 4452 137 1140 57 62	57.8 60.2 72.2 49.2 45.7 95.8	101.7 101.7 107.4 104.0 100.1	00-00	4367 4452 137 1140 57 62	61.6 60.0 60.0 44.4 36.0 89.9	104.5 103.9 92.5 94.5 82.7 97.2	0000	4367 4452 137 1140 57 62	63.9 62.7 66.3 43.8 37.4 98.5		0010	4367 4452 137 1140 57 62	65.5 63.4 69.6 47.3 38.3 104.6		000
18427 8PARADIS 18428 8MONTGO 99798 BBATEVI. 99808 5CUSHMN 18706 SCENTER 18756 5SMTH TN 18016 8SNP 18275 N1 SQN 18012 5PARADIS 18880 5RUSS.SS 27094 11GR STI. 27142 11SMITH		MON' CUSH SMTH 1 SQ 1 SQ 3 USS	TGO NT T NSS:SS		500 161 161 500-22.5 161	147 151 147 147 211	166 1 159 1 166 1 167 1 166 3	1732 15 148 1 151 1 1200 15 350 3	1732 — 148 30 151 4367 1200 75 350 160		58.6 95.3 97 82.1 92 99.5 99 70.1 90	97.6 92.2 99.6 99.6 90.3	00000	 30 4367 62 160	58.6 88.7 88.7 99.9 74.0 21.9	90.9 99.2 99.9 94.6 *	00000	65 30 4367 62 160 1252	102.2 98.8 91.2 99.8 80.8	102.9 101.2 101.1 100.6 100.4 87.8*	* * / 0 1 / 0 0 / 0	65 30 4367 0 62 160 1252	102.2 95.3 94.9 100.1 84.9	103.0 97.6 105.8 101.1 106.1	* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	65 30 4367 62 160 1252	102.3 92.7 96.8 100.5 86.8	103.0 94.9 107.9 101.2 108.2 85.9*	2 / 4 *** 1 / 2 0 / 0
18642 5GUNT HP 18024 3GUNTERV 18744 SMURFREE 18890 5LASCASS 27034 11LR TAP 27045 11WI TAP 27023 11DELVIN 27045 11WI TAP	, ш	GU W W W	NTER\ SCASS TAP		161-115 161 161 161	147 147 211	166 166 211 1	30 ; 206 2 167* 2: 176* 2	30 206 426 223* 12; 201* 12;	79 4260 65 1222 77 1222 58	79.9 65.6 91 77.9 94. 58.9 91.	91.6 94.1* 94.1*	0000	62 4260 	95.1 70.8 89.7 70.6	99.4	0000	62 4260 1222 1222	89.3 70.0 70.8 55.5	96.5 95.2 61.1*	0000	62 4260 1222 1222	97.8 73.6 86.0 66.7	C1 105.1 100.4 79.1* 75.3*	000	62 4260 1222 1225	103.8 75.4 84.1 65.0	111.2 102.7 68.5* 57.5*	* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
27017 11ARNOLD 27023 11DELVIN 27018 11ARTEMU 27027 11FARLEY 27018 11ARTEMU 27037 11PINEV	27023 11D 27027 11F, 27037 11P	5 5 5	ELVIN ARLEY INEV		161 161	211	211 2211 2	167* 20 209* 20 176* 20	201* 257* 201*	13.5	35.4	* * * *	0 0 0	111	49.7 21.6 15.7	111	0 / 0	1225 1225 1225	33.1 9.2 16.3	31.1* 18.2* 11.7*	0 0 / 0	1225	46.5 22.2 15.7	51.0* 53.2* 54.4*	0 / 0	1225	45.0 16.8 13.9	41.3* 29.7* 24.8*	0 0 / 0
Pre-existing Overload in Base Case with Increased Overloading in Study Cases	load in Base	Se	Case w	ith Incr	eased Ov	verloadir	ig in Stu	dy Cases	-	Bas	Base Case O	Overloaded	pe																
28851 10CULLEY 26879 10GRNDV 18711 562ALATI 18890 5LASCASS 16456 SWILSNTN 18914 5GLADV T 26874 10DUBOIS 26873 10DUBOIS 18724 5PIN HOO 18738 5CANE RI		8 4 5 5 6	10GRNDV 5LASCASS 5GLADV T 10DUBOIS 5CANE RI		138 161 161 69-138	210 147 147 210 147	210 166 166 210	156 1 206 2 151 1 112 1 271 2	179 31: 206 426 151 43; 117 114 271 80	3110 94 4260 80 4370 21. 1142 65. 80 61.	94.1 112 80.5 107 21.3 101 65.7 102 61.6 101	112.1 1 107.6 1 101.7 0 102.3 0	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3110 . 4260 4370 1142 80	109.7 85.6 27.6 69.8 65.2	A2 122.8 114.8 108.7 104.7	** 1 / 0 1 / 0 1 / 0	3110 4260 4370 1142 80	84.2 85.1 28.5 62.9 66.8	94.1 110.7 110.7 98.5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1065 4260 4370 1142 80	91.6 88.5 28.0 62.1 66.8	97.3 116.2 113.8 101.2	10110	3110 4260 4370 1142 80	101.6 90.3 27.8 67.2 66.9	105.6 118.7 115.2 104.7	1 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 /
18434 8BFNP 18137 N3 BFN 18691 5BOWL GR 18880 5RUSS.SS 27092 11GHENT 27128 110C TAP		() L —	3 BFN RUSS.SS OC TAP		500-20.7 161 138	147 147 211	166 1 166 , 211 ,	1200 13 180 1 227 28	1200 65 180 16 280* 12	62 93 160 53 1245 72	93.4 179 53.4 100 72.3 72.	179.4 10 100.7 0 72.9* 0	0 + 0	62 160 1245	94.2 50.3 77.6	179.6 1 98.1 71.2*	11 / 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	62 160 	96.4 59.3 69.6	B2 246.2 110.8 67.9*	11 / 1 / 0 / 0	62 160 1245	96.8 57.3 71.7	246.3 110.2 71.0*	10 / 2 1 / 0 0 / 0	62 160 1245	97.2 56.4 75.1	246.5 109.7 77.1*	10 / 3 1 / 0 0 / 0

Notes: * = Rating changed by the utility to eliminate overloading.

								Old Ra	atings	New R	atings
From	Name	٥	Name	충	Base kV	Area	Zone	Norm	Emer	Nom	Emer
27017	11ARNOLD	27023	11 DELVIN	-	161	211	211	113*	113*	167*	201*
27018	11ARTEMU	27027	11FARLEY	_	161	211	211	142*	142*	_* 602	257*
27018	11ARTEMU	27037	11PINEV	_	161	211	211	129*	129*	176*	201*
27023	11DELVIN	27045	11WI TAP	-	161	211	211	142*	142*	176*	201*
27034	11LR TAP	27045	11WI TAP	_	161	211	211	165*	165*	167*	223*
27092	11GHENT	27128	110C TAP	_	138	211	211	227	227*	227	280*
27094	11GR STL	27142	11SMITH	<u>_</u>	138	211	211	241*	241*	287*	287*

0, ω, 4, η,

--- = Less than the Minimum Reporting Level of 85%
--- = Pre-existing Overload that was changed by less than 2.5% in the new case
E = Phe-existing Overload that was changed by less than 2.5% in the new case
Count of Contingencies Causing Overloads (AB Stats)
A = Serious Overload > 105%
B = Overloaded Facily between 100% and 105% of Rated Capability
= Reduced Loading Caused by Adding Thoroughbred Project to Base Case with All MISO Generators
= Reduced Loading Caused by Adding All MISO Generators to the Thoroughbred Project 9. 7.

					Ì	Interconnection	ection I			Interconnection II	ection II			Interconnection III	rection III	
	Bus		Base Case	Case	Case	101	Case 201	201	Case 141	141	Case 241	241	Case	171	Case 271	271
#	Name	ΚV	Three Phase Line-Ground	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase 1	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground
			amps	ambs	amps	ambs	amps	amps	ambs	amps	amps	amps	amps	amps	amps	amps
		C	4	4		7	, , , , , , , , , , , , , , , , , , ,	100	2	7 7	0	7	7	1	7000	7
	I HORBRD EC I	റ്റെ	¥/N#	¥/N#	12413	14207	12413	14207	18427	18515	18432	81 691	13903	19387	13804	13388
27603	THORBRD EC 2	345	W/A#	#N/A	V/V#	W/V#	11486	12715	W/A#	W/N#	11495	12723	W/V#	#N/A	11492	12720
18001	7SHAWNEE	345	19782	19342	19784	19343	19790	19347	19787	19345	19792	19349	19784	19365	19790	19369
18002	5SHAWNE1	161	00209	51090	80209	51093	60716	51098	60717	51098	60725	51103	60708	51109	60717	51114
18007	5MARSHAL	161	34249	28376	34291	28396	34309	28404	34343	28431	34361	28439	34295	28400	34313	28408
18012	5PARADIS	161	30455	21759	30463	21762	30508	21778	42094	29242	42141	29257	36655	25828	36701	25844
18020	5CALVERT	161	28703	25760	28751	25787	28764	25794	28815	25840	28828	25847	28757	25791	28770	25798
18021	5КҮ НҮ	161	26291	21452	26352	21481	26364	21486	26425	21539	26437	21544	26360	21484	26372	21490
18026	5BARKLEY	161	24380	19499	24436	19524	24448	19529	24479	19555	24491	19561	24443	19529	24455	19534
18034	5C-31	161	39556	33270	39558	33272	39561	33273	39562	33274	39565	33275	39559	33277	39561	33279
18035	5C-33	161	51065	40707	51071	40710	51075	40712	51082	40717	51086	40718	51072	40720	51076	40722
18037	5C-35	161	27295	19785	27295	19786	27296	19786	27296	19786	27296	19786	27295	19812	27296	19812
18038	5C-37A	161	41417	33421	41419	33422	41422	33423	41422	33423	41424	33424	41419	33438	41422	33439
18039	5C-37B	161	47875	39479	47879	39480	47883	39482	47883	39483	47888	39485	47879	39491	47884	39493
18401	8SHAWNEE	500	15224	13072	15227	13073	15234	13077	15231	13075	15238	13079	15227	13085	15235	13089
18402	5SHAWNE2	161	00209	51090	60708	51093	60716	51098	60717	51098	60725	51103	80209	51109	60717	51114
18406	8MARSHAL	500	14316	11452	14321	11454	14334	11459	14327	11457	14340	11462	14321	11458	14335	11463
18427	8PARADIS	200	9015	9410	9015	9410	12397	13527	9027	9419	12409	13536	9022	9415	12405	13533
18428	8MONTGOM	200	15858	12060	15859	12060	17316	12786	15929	12090	17386	12814	15900	12078	17358	12802
18493	SPADUCAH	161	10471	9178	10474	9179	10475	9180	10477	9181	10478	9181	10474	9179	10475	9180
18494	5S CALVE	161	23071	20556	23106	20575	23114	20580	23151	20610	23159	20615	23110	20578	23118	20583
18495	5BENTON	161	9165	6740	9168	6741	9169	6742	9171	6743	9173	6743	9168	6741	9170	6742
18496	2CLINTON	161	5481	5164	5481	5164	5482	5164	5481	5164	5482	5164	5481	5164	5482	5164
18497	SMAYFIEL	161	10951	6006	10954	9010	10956	9011	10957	9012	10959	9013	10954	9011	10956	9012
18502	5MARTIN 5	161	18425	14615	18426	14615	18436	14620	18427	14616	18438	14620	18426	14615	18437	14620
18881	5E CALTP	161	25129	21189	25168	21209	25178	21214	25220	21247	25230	21252	25173	21212	25183	21216
18932	5MOSCO T	161	5388	4985	5388	4985	5388	4985	5388	4985	5388	4985	5388	4985	5388	4985
18934	5COLMN T	161	9382	7987	9383	7987	9384	7988	9385	7988	9385	7989	9383	7988	9384	7988
19055	5N STAR	161	26682	21657	26716	21672	26726	21677	26759	21701	26770	21705	26719	21674	26730	21679
19449	5ENERGY	161	27092	22995	27131	23015	27143	23020	27184	23053	27195	23058	27136	23018	27148	23023
27006	11HARDN	345	7365	2096	7371	2097	7371	2097	7374	2098	7374	2098	9094	4060	9094	4060
27012	11SMITH	345	2000	1350	5004	1351	5004	1351	2009	1351	2009	1351	12940	6872	12941	6872
27028	27028 11GR RV	161	18712	10856	20007	11297	20007	11297	33748	22451	33753	22453	22217	11788	22219	11788

						Interconnection	ection I			Interconnection II	ection II			Interconnection III	ection III	
	Bus		Base Case	Sase	Case 101	, 101	Case 201	201	Case 141	141	Case 241	241	Case 171	171	se	271
# Name	me	k	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground amps	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase I	Line-Ground amps
27029 11G	11GRAHVL	161	34216	23021	34221	23022	34222	23023	34228	23026	34230	23027	34221	23025	34223	23026
27033 11L	11LIV C	161	20438	13707	20495	13728	20501	13729	20629	13845	20635	13847	20514	13733	20519	13735
27043 118	11S PADU	161	10964	6487	10968	6488	10969	6488	10978	6494	10979	6494	10969	6486	10970	6488
27047 11V	11WICKLI	161	6046	3271	6047	3271	6047	3271	6047	3271	6047	3271	6047	3271	6047	3271
27079 11C	11CLVRPR	138	14335	7145	14422	7162	14423	7162	14385	7164	14385	7164	14452	7610	14453	7610
27094 11G	11GR STL	138	20527	3569	20583	3571	20583	3571	20667	3574	20667	3574	22803	3760	22803	3760
27095 11G	11GR RVR	138	21648	3010	22420	3020	22420	3020	28178	3077	28180	3077	23549	3152	23550	3153
27142 118	11SMITH	138	21281	3567	21335	3569	21335	3569	21416	3572	21416	3572	23890	3760	23891	3760
27216 11G	11GR RVR	69	23913	3682	24268	3687	24269	3687	26503	3719	26504	3719	24756	3694	24757	3695
27218 11G	11GRAHMV	69	8357	1126	8358	1126	8358	1126	8358	1126	8358	1126	8358	1126	8358	1126
27298 110	11WICKLI	69	8501	2770	8501	2770	8501	2770	8501	2770	8501	2770	8501	2770	8501	2770
27551 14R	14REID 5	161	23133	26941	24884	28607	24884	28607	23875	27624	23876	27625	25644	29263	25645	29263
27552 14C	14COLE 5	161	19963	21424	21320	22527	21320	22528	20505	21850	20505	21850	22012	22195	22012	22195
27553 14V	14WILSO5	161	19776	21181	22850	24398	22850	24399	30640	30564	30643	30566	30113	29971	30117	29974
27561 14V	14WILSO7	345	9251	9773	13730	14843	13730	14843	10809	11108	10809	11108	16302	16308	16303	16308
27563 14C	14COLE 7	345	7583	7980	8720	8876	8720	8876	8036	8322	8036	8322	9704	8417	9705	8417
27616 14N	14N.HAR5	161	11295	6543	11378	6564	11378	6564	11348	6571	11348	6571	11341	6899	11341	6899
27618 14L	14LIVIN5	161	16037	11604	16054	11610	16058	11611	16067	11617	16072	11619	16056	11612	16060	11614
27620 14N	14MCRAK5	161	22864	15956	22866	15956	22867	15957	22868	15957	22870	15958	22866	15958	22868	15958
30282 CAF	CAPE GIR	161	13239	8603	13239	8603	13240	8603	13239	8603	13240	8603	13239	8619	13240	8620
30825 JOF	JOPPA TS	345	18102	14472	18103	14473	18106	14475	18105	14474	18108	14476	18103	14489	18107	14490
30830 JOF	JOPPA	230	12083	8341	12083	8341	12083	8341	12083	8341	12083	8341	12083	8361	12083	8361
30849 KEL	KELSO	345	12018	6622	12018	6622	12019	6622	12019	6622	12020	6622	12018	6642	12019	6643
30850 KEL	KELSO	161	16714	10954	16714	10954	16715	10955	16714	10954	16715	10955	16714	10979	16715	10979
31023 MAI	MARION S	161	11419	9200	11420	9501	11420	9501	11420	9501	11420	9501	11420	9555	11420	9555
31248 MO	MOUND CY	161	4560	3005	4560	3005	4560	3005	4560	3005	4560	3005	4560	3005	4560	3005
31924 W.F	W.FRKFT	230	10258	7463	10259	7464	10259	7464	10259	7464	10259	7464	10259	7542	10259	7542
33351 5MF	5MRN_PLN	161	10807	9040	10807	9040	10808	9040	10808	9041	10808	9041	10808	6806	10808	9089
33352 5RE	5RENSHAW	161	6319	5354	6321	5355	6321	5355	6321	5355	6321	5355	6321	5366	6321	5366
33391 JOF	JOPPA N	161	29873	17091	29874	17091	29874	17091	29874	17091	29874	17091	29874	17139	29874	17139
33392 JOF	JOPPA S	161	49981	29401	49985	29402	49987	29403	49989	29403	49991	29404	49985	29424	49988	29425
33394 JOF	JOPPA TS	161	49208	29402	49211	29403	49214	29404	49215	29404	49218	29405	49212	29426	49214	29427

LEGEND

0 - 2% increase 2 - 5% increase 5 - 10% increase >10% increase

10000 10000 10000

						Interconnection	ection I			Interconnection II	ection II			Interconnection III	ection III	
	Bus		Base Case	Case	Case 101	101	Case 201	201	Case 141	141	Case 241	241	Case	$\overline{}$	Case 271	271
#	Name	ΚV	Three Phase Line-Ground amps	Line-Ground amps	Three Phase amps	Line-Ground amps	Three Phase Line-Ground amps	Line-Ground amps	Three Phase amps	Line-Ground amps	Three Phase Line-Ground amps	Line-Ground amps	Three Phase amps	Line-Ground amps	Three Phase amps	Line-Ground amps
27604	THORBRD EC 1	200	#N/A	#N/A	12415	14207	12415	14207	18427	18515	18432	18518	13903	15387	13904	15388
27603	THORBRD EC 2	345	#N/A	#N/A	#N/A	#N/A	11486	12715	#N/A	#N/A	11495	12723	#N/A	#N/A	11492	12720
18001	7SHAWNEE	345	19782	19342	19784	19343	19790	19347	19787	19345	19792	19349	19784	19365	19790	19369
18002	5SHAWNE1	161	00209	51090	80209	51093	60716	51098	60717	51098	60725	51103	80209	51109	60717	51114
18007	5MARSHAL	161	34249	28376	34291	28396	34309	28404	34343	28431	34361	28439	34295	28400	34313	28408
18012	5PARADIS	161	30455	21759	30463	21762	30508	21778	42094	29242	42141	29257	36655	25828	36701	25844
18020	5CALVERT	161	28703	25760	28751	25787	28764	25794	28815	25840	28828	25847	28757	25791	28770	25798
18021	5КҮ НҮ	161	26291	21452	26352	21481	26364	21486	26425	21539	26437	21544	26360	21484	26372	21490
18026	5BARKLEY	161	24380	19499	24436	19524	24448	19529	24479	19555	24491	19561	24443	19529	24455	19534
18034	5C-31	161	39556	33270	39558	33272	39561	33273	39562	33274	39565	33275	39559	33277	39561	33279
18035	5C-33	161	51065	40707	51071	40710	51075	40712	51082	40717	51086	40718	51072	40720	51076	40722
18037	5C-35	161	27295	19785	27295	19786	27296	19786	27296	19786	27296	19786	27295	19812	27296	19812
18038	5C-37A	161	41417	33421	41419	33422	41422	33423	41422	33423	41424	33424	41419	33438	41422	33439
18039	5C-37B	161	47875	39479	47879	39480	47883	39482	47883	39483	47888	39485	47879	39491	47884	39493
18401	8SHAWNEE	200	15224	13072	15227	13073	15234	13077	15231	13075	15238	13079	15227	13085	15235	13089
18402	5SHAWNE2	161	00209	51090	80209	51093	60716	51098	60717	51098	60725	51103	80209	51109	60717	51114
18406	8MARSHAL	200	14316	11452	14321	11454	14334	11459	14327	11457	14340	11462	14321	11458	14335	11463
18427	8PARADIS	200	9015	9410	9015	9410	12397	13527	9027	9419	12409	13536	9022	9415	12405	13533
18428	8MONTGOM	200	15858	12060	15859	12060	17316	12786	15929	12090	17386	12814	15900	12078	17358	12802
18493	5PADUCAH	161	10471	9178	10474	9179	10475	9180	10477	9181	10478	9181	10474	9179	10475	9180
18494	5S CALVE	161	23071	20556	23106	20575	23114	20580	23151	20610	23159	20615	23110	20578	23118	20583
18495	5BENTON	161	9165	6740	9168	6741	9169	6742	9171	6743	9173	6743	9168	6741	9170	6742
18496	5CLINTON	161	5481	5164	5481	5164	5482	5164	5481	5164	5482	5164	5481	5164	5482	5164
18497		161	10951	6006	10954	9010	10956	9011	10957	9012	10959	9013	10954	9011	10956	9012
18502	5MARTIN	161	18425	14615	18426	14615	18436	14620	18427	14616	18438	14620	18426	14615	18437	14620
18881	5E CALTP	161	25129	21189	25168	21209	25178	21214	25220	21247	25230	21252	25173	21212	25183	21216
18932	5MOSCO T	161	5388	4985	5388	4985	5388	4985	5388	4985	5388	4985	5388	4985	5388	4985
18934	5COLMN T	161	9382	7987	9383	7987	9384	7988	9385	7988	9385	7989	9383	7988	9384	7988
19055	5N STAR	161	26682	21657	26716	21672	26726	21677	26759	21701	26770	21705	26719	21674	26730	21679
19449	5ENERGY	161	27092	22995	27131	23015	27143	23020	27184	23053	27195	23058	27136	23018	27148	23023
27006	11HARDN	345	7365	2096	7371	2097	7371	2097	7374	2098	7374	2098	9094	4060	9094	4060
27012	11SMITH	345	2000	1350	5004	1351	5004	1351	2009	1351	2009	1351	12940	6872	12941	6872
27028	11GR RV	161	18712	10856	20007	11297	20007	11297	33748	22451	33753	22453	22217	11788	22219	11788

						Interconnection	lection I			Interconnection II	ection II			Interconnection III	ection III	
	Bus		Base Case	Case	Case 101	101	Case 201	201	Case 141	141	Case 241	241	Case 171	171	Case	271
#	Name	k	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground	Three Phase	Line-Ground
27029	11GRAHVL	161	34216	23021	34221	23022	34222	23023	34228	23026	34230	23027	34221	23025	34223	23026
27033	11LIV C	161	20438	13707	20495	13728	20501	13729	20629	13845	20635	13847	20514	13733	20519	13735
27043	11S PADU	161	10964	6487	10968	6488	10969	6488	10978	6494	10979	6494	10969	6489	10970	6489
27047	11WICKLI	161	6046	3271	6047	3271	6047	3271	6047	3271	6047	3271	6047	3271	6047	3271
27079	11CLVRPR	138	14335	7145	14422	7162	14423	7162	14385	7164	14385	7164	14452	7610	14453	7610
27094	11GR STL	138	20527	3569	20583	3571	20583	3571	20667	3574	20667	3574	22803	3760	22803	3760
27095	11GR RVR	138	21648	3010	22420	3020	22420	3020	28178	3077	28180	3077	23549	3152	23550	3153
27142	11SMITH	138	21281	3567	21335	3569	21335	3569	21416	3572	21416	3572	23890	3760	23891	3760
27216	11GR RVR	69	23913	3682	24268	3687	24269	3687	26503	3719	26504	3719	24756	3694	24757	3695
27218	11GRAHMV	69	8357	1126	8358	1126	8358	1126	8358	1126	8358	1126	8358	1126	8358	1126
27298	11WICKLI	69	8501	2770	8501	2770	8501	2770	8501	2770	8501	2770	8501	2770	8501	2770
27551	14REID 5	161	23133	26941	24884	28607	24884	28607	23875	27624	23876	27625	25644	29263	25645	29263
27552	14COLE 5	161	19963	21424	21320	22527	21320	22528	20505	21850	20505	21850	22012	22195	22012	22195
27553	14WILS05	161	19776	21181	22850	24398	22850	24399	30640	30564	30643	30566	30113	29971	30117	29974
27561	14WILSO7	345	9251	9773	13730	14843	13730	14843	10809	11108	10809	11108	16302	16308	16303	16308
27563	14COLE 7	345	7583	7980	8720	8876	8720	8876	8036	8322	8036	8322	9704	8417	9705	8417
27616	14N.HAR5	161	11295	6543	11378	6564	11378	6564	11348	6571	11348	6571	11341	6889	11341	6689
27618	14LIVIN5	161	16037	11604	16054	11610	16058	11611	16067	11617	16072	11619	16056	11612	16060	11614
27620	14MCRAK5	161	22864	15956	22866	15956	22867	15957	22868	15957	22870	15958	22866	15958	22868	15958
30282	CAPE GIR	161	13239	8603	13239	8603	13240	8603	13239	8603	13240	8603	13239	8619	13240	8620
30825	JOPPA TS	345	18102	14472	18103	14473	18106	14475	18105	14474	18108	14476	18103	14489	18107	14490
30830	JOPPA	230	12083	8341	12083	8341	12083	8341	12083	8341	12083	8341	12083	8361	12083	8361
30849	KELSO	345	12018	6622	12018	6622	12019	6622	12019	6622	12020	6622	12018	6642	12019	6643
30850	KELSO	161	16714	10954	16714	10954	16715	10955	16714	10954	16715	10955	16714	10979	16715	10979
31023	MARION S	161	11419	9200	11420	9501	11420	9501	11420	9501	11420	9501	11420	9555	11420	9555
31248		161	4560	3005	4560	3002	4560	3005	4560	3005	4560	3005	4560	3005	4560	3005
31924	W.FRKFT	230	10258	7463	10259	7464	10259	7464	10259	7464	10259	7464	10259	7542	10259	7542
33351	5MRN_PLN	161	10807	9040	10807	9040	10808	9040	10808	9041	10808	9041	10808	6806	10808	6806
33352	5RENSHAW	161	6319	5354	6321	5355	6321	5355	6321	5355	6321	5355	6321	5366	6321	5366
33391	JOPPA N	161	29873	17091	29874	17091	29874	17091	29874	17091	29874	17091	29874	17139	29874	17139
33392	JOPPA S	161	49981	29401	49985	29402	49987	29403	49989	29403	49991	29404	49985	29424	49988	29425
33394	JOPPA TS	161	49208	29402	49211	29403	49214	29404	49215	29404	49218	29405	49212	29426	49214	29427

LEGEND

0 - 2% increase 2 - 5% increase 5 - 10% increase >10% increase

10000 10000 10000

Thoroughbred Energy Campus

Transient Stability Analysis for Preferred Interconnection Plan - 2003 Summer

Preferred Interconnection Plan with MISO

Exhibits D11 - D82

Fault Location Bus No. Bus Name	⋧	Bus No.	Bus Name	Tripp	Tripped Facility V Bus No.	ty Bus Name	≥	F Circuit (Figure # 6 cycle Cleraing	Fault Duration cycles	Figure # Critical Clearing Time (cy)	Response	Critical Clearing Time (cy)	
WILSON SUBSTATION 27561 14WILSO7 34	JON 345	27561	14WILSO7	345	27562	14REID 7	345	_	D11	9	D12	Stable	∞	
27553 14WILSO5	161	27561 27553	14WILSO7 14WILSO5	345 161	27012 27561	11SMITH 14WILSO7	345 345			9 9	D14	Stable Stable	9	
		27553	14WILSO5	161	27028	11GR RV	161	_	D15	9	D16	Stable	12	
REID SUBSTATION 27562 14REID 7	345	27562	14REID 7	345	27561	14WILSO7	345	_		9	D22	Stable	2	
27554 44DEID 6	2	27562	14REID 7	345	27551	14REID 5	161	- -		9 9	200	Stable	17	
27331 14REID 3	0	27551	14REID 5	161	27559	14DAVIS5	343 161			0 9	D26	Stable	= =	
		27551 27551	14REID 5 14REID 5	161	27560 27619	14HENDR5 14HOPC05	161			<u>ဖ</u> ဖ		Stable Stable	= =	
27554 14REID	69	27554		69	27551	14REID 5	161	-		8	D28	Stable	28	
GREEN RIVER SUBSTATION 27028 11GR RV 161	STATION	27028	11GR RV	197	27020	11CORY T	161	-		G		Stable		
		27028	11GR RV	161	27042	11RQ TAP	161	-		ာ ဖ		Stable	18	
07007	0	27028	11GR RV	161	27553	14WILSO5	161	- -		ဖ ဖ	D32	Stable	7 9 1	
27095 11GK KVK	138	27095	11GK KVK 11GR RVR	8 8	27028	11GR RV 11GR STL	161 138			9 9	D34	Stable Stable	ა ლ	
		27095	11GR RVR	138	27126	110HIO C	138	_		9		Stable	15	
27216 11GR RVR	69	27216	11GR RVR	69	27095	11GR RVR	138	-		œ	D38	Stable	-	
COLEMAN SUBSTATION 27563 14COLE 7 345	1TION 345	27563	14COLE 7	345	27012	11SMITH	345	~		9	D42	Stable	24	
27552 14COLE 5	161	27552	14COLE 5	161	27563	14COLE 7 14NATAI 5	345			9 4	D44	Stable	6 6	
		27552	14COLE 5	161	27557	14HANCO5	161			ာဖ	D46	Stable	5 €	
		27552	14COLE 5	161	26857	10NEWTVL	161	-		9		Stable	12	
SMITH SUBSTATION 27012 11SMITH 3	345	27012	11SMITH	345	27006	11HARDN	345	_		9	D52	Stable	17	
		27012 27012	11SMITH 11SMITH	345 345	27561 27563	14WILSO7 14COLE 7	345 345			ဖ ဖ		Stable Stable	17 16	
27142 11SMITH	138	27142	11SMITH	138	27012	11SMITH	345	_		4	D54	Stable	- -	
		27142	11SMITH	138	27094	11GR STL	138	-		9	D26	Stable	12	
MONTGOMERY SUBSTATION 18428 8MONTGOM 500	BSTATION 500	18428	8MONTGOM	200	18430	8DAVIDSO	200	-		4	D60	Stable	Ŋ	
PARADISE SUBSTATION 18427 8PARADIS 500	TION 500									9	D70	Stable	9	
THOROUGHBRED SUBSTATION 27603 THORBRED 500 27604 THORBRED 345	SUBSTATION 500 345									<u> </u>	D80 D82	Stable Stable	7 6	

Thoroughbred Energy Campus

Transient Stability Analysis for MISO Base Case - 2003 Summer
MISO Base Case

			Z X	//ISOB hibits □	MISO Base Case Exhibits D112 - D160						
Fault Location Bus No. Bus Name kV	Bus No.	Bus Name	Tripp K	Tripped Facility V Bus No.	ity Bus Name	≥	Circuit	Fault Duration cycles	Figure # Critical Clearing Time (cy)	Figure # Critical Clearing Time (cy) Response	Critical Clearing Time (cy)
WILSON SUBSTATION 27561 14WILSO7 345	27561	14WILSO7	345	27562	14REID 7	345	~	9	D112	Stable	16
27553 14WILSO5 161	27561 27553 27553	14WILSO7 14WILSO5 14WILSO5	345 161	27563 27561 27028	14COLE 7 14WILSO7 11GR RV	345 345 161		ပ ပ ပ		Stable Stable Stable	7 7 4
ION	09970	7 0 7 1	, 14,	70	000	, 1	7	Q	5	0 1	C
27551 14REID 5 161	27562 27562 27551	14REID 7 14REID 7	345 161	27551 27562 27562	14REID 5 14REID 7	345 345		၀ ဖ ဖ	0 122	Stable Stable Stable	2 1 2 7
!	27551 27551 27551	14REID 5 14REID 5 14REID 5	191	27559 27560 27619	14DAVIS5 14HENDR5 14HOPCO5	5 6 6		တ တ တ ၀		Stable Stable Stable	
27554 14REID 69	27554	14REID	69	27551	14REID 5	161	τ-	∞		Stable	28
GREEN RIVER SUBSTATION 27028 11GR RV 161		11GR RV 11GR RV	1 61 5	27020 27042	11CORY T 11RQ TAP	191		ပ ပ ပ	7	Stable Stable	7 7 7
27095 11GR RVR 138	27028 27095 27095	11GR RVR 11GR RVR 11GR RVR	138	27028 27028 27094	14WILSUS 11GR RV 11GR STL	138		၀ ဖ ဖ	D132	Stable Stable Stable	<u>5</u> 1 1 1
27216 11GR RVR 69	27095 27216	11GR RVR 11GR RVR	138 69	27126 27095	110HIO C 11GR RVR	138 138		ယ ထ		Stable Stable	t 0
COLEMAN SUBSTATION 27563 14COLE 7 345 27552 14COLE 5 161	27563 27552 27552 27552 27552	14COLE 7 14COLE 5 14COLE 5 14COLE 5 14COLE 5	345 161 161 161	27561 27563 27564 27557 26857	14WILSO7 14COLE 7 14NATAL5 14HANCO5 10NEWTVL	345 345 161 161		00000	D142	Stable Stable Stable Stable Stable	2 C C C C C C
SMITH SUBSTATION 27012 11SMITH 345 27142 11SMITH 138	27012 27142 27142	11SMITH 11SMITH 11SMITH	345 138 138	27006 27012 27094	11HARDN 11SMITH 11GR STL	345 345 138		040	D152	Stable Stable Stable	8 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
MONTGOMERY SUBSTATION 18428 8MONTGOM 500)N 18428	8MONTGOM	200	18430	8DAVIDSO	200	~	4	D160	Stable	۲
PARADISE SUBSTATION 18427 8PARADIS 500								9		Stable	7

Thoroughbred Energy Campus
Transient Stability Analysis for Base Case - 2003 Summer
Base Case
Exhibits D112 - D160

				Ш	xhibits	Exhibits D112 - D160							
Fault Location				Tripp	Tripped Facility	:			Figure # 6 cycle	Fault Duration	Critical Clearing		Critical Clearing
Bus No. Bus Name	κ	Bus No.	Bus Name	₹	Bus No.	Bus Name	≩	Circuit	Cleraing	cycles	Time (cy)	Time (cy) Response	Time (cy)
WILSON SUBSTATION 27561 14WILSO7 348	ON 345	27561	14WILSO7		27562	14REID 7	345	_	D211	9	D212	Stable	15
27553 14WII SO5	161	27561 27553	14WILSO7	345	27563	14COLE 7 14WII SO7	345			<u>ဖ</u>		Stable Stable	17
	5	27553	14WILSO5		27028	11GR RV	161	· -	D215	9	D216	Stable	= ==
REID SUBSTATION	275	27562	7	77	27561	44/A/II 0.07	772	4		ď	2222	0140	C
	0 10 10 10 10 10 10 10 10 10 10 10 10 10	27562 27562	14REID 7		27551	14WILSO/ 14REID 5	161	- ←		၁ ဖ	0222	Stable	2 2
27551 14REID 5	161	27551	14REID 5		27562	14REID 7	345	—		9		Stable	1
		27551	14REID 5		27559	14DAVIS5	161	-		9		Stable	1
		27551	14REID 5		27560	14HENDR5	161	- -		9		Stable	Ξ:
27554 14REID	69	27551 27554	14REID 5 14REID	161 69	27619 27551	14HOPCO5 14REID 5	161 161			တ ဆ		Stable Stable	11 28
GREEN RIVER SUBSTATION 27028 11GB BV 161	STATION 161	27028	11GR RV	161	27020	11COBY T	161	-		ď		Stable	17
	-	27028	11GR RV		27042	11RO TAP	161			ွေ		Stable	17
		27028	11GR RV		27553	14WILSO5	161	· ←		တ	D232	Stable	16
27095 11GR RVR	138	27095	11GR RVR	138	27028	11GR RV	161	_		9		Stable	15
		27095	11GR RVR	138	27094	11GR STL	138	_		9		Stable	15
		27095	11GR RVR	138	27126	110HIO C	138	_		9		Stable	15
27216 11GR RVR	69	27216	11GR RVR	69	27095	11GR RVR	138	—		80		Stable	10
COLEMAN SUBSTATION	LION												
27563 14COLE 7	345	27563	14COLE 7	345	27561	14WILSO7	345	_		9	D242	Stable	25
27552 14COLE 5	161	27552	14COLE 5		27563	14COLE 7	345	_		9	D244	Stable	13
		27552	14COLE 5		27564	14NATAL5	161	_		9		Stable	13
		27552	14COLE 5		27557	14HANCO5	161	_		9		Stable	13
		27552	14COLE 5	161	26857	10NEWTVL	161	-		9		Stable	13
SMITH SUBSTATION 27012 11SMITH 3	N 345	27012	11SMITH	345	27006	11HARDN	345	_		Ç	D252	Stable	33
27142 11SMITH	138	27142	11SMITH		27012	11SMITH	345	· -		4		Stable	12
		27142	11SMITH		27094	11GR STL	138	_		9		Stable	1
MONTGOMERY SUBSTATION 18428 8MONTGOM 500	BSTATION 500	18428	8MONTGOM	200	18430	8DAVIDSO	200			4	D260	Stable	9
	TION									Q		0	1
18427 SPAKADIS	200									0		Stable	

Thoroughbred Energy Campus

Case 271MF - 2005 Summer

All MISO Gens Add Brown N to Pineville

11/1/2002

No.	Contingency	Ckt	Base kV	Area	Zone
27	outage of 18401 8SHAWNEE to 18001 7SHAWNEE	1	500-345	147	166
30	outage of 18401 8SHAWNEE to 18402 5SHAWNE2	1	500-161	147	166
32	outage of 18401 8SHAWNEE to 18406 8MARSHAL	1	500	147	166
40	outage of 18406 8MARSHAL to 18007 5MARSHAL	1	500-161	147	166
42	outage of 18406 8MARSHAL to 18425 8CUMBERL	1	500	147	166
45	outage of 18422 8JVILLE to 18425 8CUMBERL	1	500	147	166
47	outage of 18422 8JVILLE to 18430 8DAVIDSO	1	500	147	166
57	outage of 18425 8CUMBERL to 18430 8DAVIDSO	1	500	147	166
62	outage of 8PARADIS to 8MONTGOM (& Redispatch)		500	147	166
65	outage of 18428 8MONTGOM to 18430 8DAVIDSO	1	500	147	166
67	outage of 18428 8MONTGOM to 18449 8WILSON	1	500	147	166
70	outage of 18428 8MONTGOM to 19415 0MONT MP	1	500-1	147	166
72	outage of 18430 8DAVIDSO to 18431 5DAVIDSO	1	500-161	147	166
75	outage of 18430 8DAVIDSO to 18432 8MAURY	1	500	147	166
77	outage of 18430 8DAVIDSO to 18579 8PIN HOO	1	500	147	166
80	outage of 18430 8DAVIDSO to 18698 5DAVSN 2	1	500-161	147	166
82	outage of 18432 8MAURY to 18433 5MAURY	1	500-161	147	166
110	outage of 18449 8WILSON to 18450 5WILSNTN	1	500-161	147	166
112	outage of 18449 8WILSON to 18579 8PIN HOO	1	500	147	166
115	outage of 18579 8PIN HOO to 18724 5PIN HOO	1	500-161	147	166
132	outage of 18007 5MARSHAL to 18020 5CALVERT	1	161	147	166
135	outage of 18007 5MARSHAL to 18493 5PADUCAH	1	161	147	166
137	outage of 18007 5MARSHAL to 18495 5BENTON	1	161	147	166
140	outage of 18007 5MARSHAL to 18497 5MAYFIEL	1	161	147	166
142	outage of 18007 5MARSHAL to 19055 5N STAR	1	161	147	166
155	outage of 18012 5PARADIS to 18686 5HOPKINV	1	161	147	166
157	outage of 18012 5PARADIS to 18686 5HOPKINV	2	161	147	166
160	outage of 18012 5PARADIS to 18691 5BOWL GR	1	161	147	166
162	outage of 18012 5PARADIS to 18866 5CROSSPN	1	161	147	166
165	outage of 18012 5PARADIS to 18880 5RUSS.SS	1	161	147	166
167	outage of 18012 5PARADIS to 18926 5ABERD T	1	161	147	166
170	outage of 18012 5PARADIS to 19472 5ELKTNTP	1	161	147	166
172	outage of 18020 5CALVERT to 18195 1ARPR&CH	1	161-13	147	166
175	outage of 18020 5CALVERT to 18494 5S CALVE	1	161	147	166
177	outage of 18020 5CALVERT to 19449 5ENERGY	1	161	147	166
180	outage of 18021 5KY HY to 18026 5BARKLEY	1	161	147	166
182	outage of 18021 5KY HY to 18026 5BARKLEY	2	161	147	166
185	outage of 18021 5KY HY to 18494 5S CALVE	1	161	147	166
195	outage of 18026 5BARKLEY to 18526 5DOVER	1	161	147	166
197	outage of 18026 5BARKLEY to 18953 5PRINC T	1	161	147	166
205	outage of 18027 5SUMMER to 18713 5LAFAYET	1	161	147	166

No.	Contingency	Ckt	Base kV	Area	Zone
207	outage of 18027 5SUMMER to 19006 5GLASG T	1	161	147	166
317	outage of 18686 5HOPKINV to 18794 5LEWISBG	1	161	147	166
320	outage of 18686 5HOPKINV to 19190 5SUPGRTP	1	161	147	166
322	outage of 18686 5HOPKINV to 19213 5CADIZT	1	161	147	166
325	outage of 18686 5HOPKINV to 19411 0HOPK MP	1	161-1	147	166
330	outage of 18690 5RUSV KY to 19515 5NRUSLVL	1	161	147	166
332	outage of 18691 5BOWL GR to 18692 5E BOWL	1	161	147	166
335	outage of 18691 5BOWL GR to 18880 5RUSS.SS	1	161	147	166
337	outage of 18691 5BOWL GR to 18928 5SBOWL T	1	161	147	166
340	outage of 18692 5E BOWL to 18697 5SCOTTSV	1	161	147	166
342	outage of 18692 5E BOWL to 18926 5ABERD T	1	161	147	166
345	outage of 18692 5E BOWL to 19007 5BRSTO T	1	161	147	166
395	outage of 18716 5LOGAN A to 18880 5RUSS.SS	1	161	147	166
477	outage of 18794 5LEWISBG to 18880 5RUSS.SS	1	161	147	166
480	outage of 18880 5RUSS.SS to 19515 5NRUSLVL	1	161	147	166
487	outage of 18953 5PRINC T to 19213 5CADIZT	1	161	147	166
495	outage of 19055 5N STAR to 19071 5PENWL T	1	161	147	166
497	outage of 19071 5PENWL T to 19449 5ENERGY	1	161	147	166
585	outage of 18020 5CALVERT to 18881 5E CALTP	1	161	147	166-165
587	outage of 18021 5KY HY to 18881 5E CALTP	1	161	147	166-165
600	outage of 18449 8WILSON to 18461 8ROANE	1	500	147	166-167
670	outage of 18020 5CALVERT to 27033 11LIV C	1	161	147-211	166-211
672	outage of 18021 5KY HY to 27033 11LIV C	1	161	147-211	166-211
680	outage of 18007 5MARSHAL to 27618 14LIVIN5	1	161	147-214	166-214
682	outage of 18007 5MARSHAL to 27620 14MCRAK5	1	161	147-214	166-214
685	outage of 18012 5PARADIS to 27616 14N.HAR5	1	161	147-214	166-214
687	outage of 18026 5BARKLEY to 27618 14LIVIN5	1	161	147-214	166-214
690	outage of 18026 5BARKLEY to 27619 14HOPCO5	1	161	147-214	166-214
695	outage of 18001 7SHAWNEE to 30825 JOPPA TS	1	345	147-356	166-310
697	outage of 18001 7SHAWNEE to 32339 E WFT IP	1	345	147-357	166-357
717	outage of 22673 05SULLVA to 22653 05BREED	1	765-345	205	252
720	outage of 22673 05SULLVA to 22653 05BREED	2	765-345	205	252
760	outage of 25143 07MEROM5 to 25162 07WORTHN	1	345	207	207
767	outage of 25162 07WORTHN to 25044 07WORTH8	1	345-138	207	207
772	outage of 25034 07RATTS to 25094 07TASWL1	1	161	207	207
775	outage of 25034 07RATTS to 25146 07RATTS8	1	161-138	207	207
777	outage of 25093 07TAS_2 to 25094 07TASWL1	1	69-161	207	207
780	outage of 25094 07TASWL1 to 25180 07BEDFRD	1	161	207	207
785	outage of 25154 07WORTH to 25044 07WORTH8	1	161-138	207	207
825	outage of 25143 07MEROM5 to 25948 08GIBSON	1	345	207-208	207-281
832	outage of 25181 07RAMSY5 to 25948 08GIBSON	1	345	207-208	207-281
837	outage of 25044 07WORTH8 to 26047 08BEDFRD	1	138	207-208	207-281
847	outage of 25094 07TASWL1 to 26857 10NEWTVL	1	161	207-210	207-210
850	outage of 25146 07RATTS8 to 27871 16PETE	1	138	207-216	207-216
875	outage of 25947 08BEDFRD to 25948 08GIBSON	1	345	208	281

No.	Contingency	Ckt	Base kV	Area	Zone
877	outage of 25947 08BEDFRD to 26047 08BEDFRD	1	345-138	208	281
880	outage of 25947 08BEDFRD to 26047 08BEDFRD	2	345-138	208	281
882	outage of 25947 08BEDFRD to 26161 08LOST R	1	345	208	281
885	outage of 25948 08GIBSON to 26081 08GIB	1	345-138	208	281
940	outage of 26047 08BEDFRD to 26048 08ROGRST	1	138	208	281
950	outage of 26047 08BEDFRD to 26075 08EDWRDS	1	138	208	281
972	outage of 26075 08EDWRDS to 26082 08VIN	1	138	208	281
975	outage of 26075 08EDWRDS to 26083 08PEATAP	1	138	208	281
977	outage of 26075 08EDWRDS to 26129 08HE GRN	1	138	208	281
982	outage of 26076 08VIN J to 26077 08WASHMU	1	138	208	281
985	outage of 26076 08VIN J to 26139 08MAIN J	1	138	208	281
987	outage of 26078 08OKLND to 26079 08PRNCTN	1	138	208	281
990	outage of 26079 08PRNCTN to 26081 08GIB	1	138	208	281
992	outage of 26082 08VIN to 26139 08MAIN J	1	138	208	281
1005	outage of 26174 08EDSPRT to 26075 08EDWRDS	1	69-138	208	281
1007	outage of 26181 08OKLND to 26078 08OKLND	1	69-138	208	281
1025	outage of 26078 08OKLND to 26905 10TOYOTA	1	138	208-210	281-210
1027	outage of 25949 08SPEED to 27005 11GHENT	1	345	208-211	281-211
1030	outage of 25950 08BATESV to 27005 11GHENT	1	345	208-211	281-211
1040	outage of 25947 08BEDFRD to 27824 16PETE	1	345	208-216	281-216
1042	outage of 25948 08GIBSON to 27824 16PETE	1	345	208-216	281-216
1045	outage of 26161 08LOST R to 27824 16PETE	1	345	208-216	281-216
1047	outage of 26076 08VIN J to 27871 16PETE	1	138	208-216	281-216
1050	outage of 26078 08OKLND to 27871 16PETE	1	138	208-216	281-216
1055	outage of 25948 08GIBSON to 30008 ALBION	1	345	208-356	281-323
1057	outage of 26082 08VIN to 30931 LAWRNCVL	1	138	208-356	281-323
1060	outage of 26855 10NEWTVL to 26857 10NEWTVL	1	138-161	210	210
1062	outage of 26851 10CULLEY to 26866 10CASTLE	1	138	210	210
1065	outage of 26851 10CULLEY to 26873 10DUBOIS	1	138	210	210
1067	outage of 26851 10CULLEY to 26875 10ANGMND	1	138	210	210
1070	outage of 26851 10CULLEY to 26879 10GRNDVW	1	138	210	210
1082	outage of 26853 10HEIDEL to 26854 10NW	1	138	210	210
1085	outage of 26853 10HEIDEL to 26875 10ANGMND	1	138	210	210
1087	outage of 26854 10NW to 26856 10NE	1	138	210	210
1090	outage of 26854 10NW to 26858 10MTVERN	1	138	210	210
1092	outage of 26854 10NW to 26861 10ABBRWN	1	138	210	210
1095	outage of 26855 10NEWTVL to 26879 10GRNDVW	1	138	210	210
1097	outage of 26856 10NE to 26861 10ABBRWN	1	138	210	210
1100	outage of 26856 10NE to 26866 10CASTLE	1	138	210	210
1102	outage of 26856 10NE to 26877 10ELLIOT	1	138	210	210
1105	outage of 26858 10MTVERN to 26861 10ABBRWN	1	138	210	210
1107	outage of 26858 10MTVERN to 26888 10POINT	1	138	210	210
1110	outage of 26859 10MTVERN to 26858 10MTVERN	1	69-138	210	210
1112	outage of 26859 10MTVERN to 26858 10MTVERN	2	69-138	210	210
1122	outage of 26861 10ABBRWN to 26888 10POINT	1	138	210	210

No.	Contingency	Ckt	Base kV	Area	Zone
1127	outage of 26867 10CASTLE to 26866 10CASTLE	1	69-138	210	210
1132	outage of 26869 10CATO to 26868 10CATO	1	69-138	210	210
1135	outage of 26871 10CULLEY to 26851 10CULLEY	1	69-138	210	210
1137	outage of 26873 10DUBOIS to 26904 10CATO_T	1	138	210	210
1140	outage of 26874 10DUBOIS to 26873 10DUBOIS	1	69-138	210	210
1142	outage of 26874 10DUBOIS to 26873 10DUBOIS	2	69-138	210	210
1145	outage of 26876 10ANGMND to 26875 10ANGMND	1	69-138	210	210
1147	outage of 26877 10ELLIOT to 26905 10TOYOTA	1	138	210	210
1150	outage of 26878 10ELLIOT to 26877 10ELLIOT	1	69-138	210	210
1152	outage of 26880 10GRNDVW to 26879 10GRNDVW	1	69-138	210	210
1155	outage of 26881 10HEIDEL to 26853 10HEIDEL	1	69-138	210	210
1157	outage of 26884 10NE to 26856 10NE	1	69-138	210	210
1160	outage of 26884 10NE to 26856 10NE	2	69-138	210	210
1162	outage of 26886 10NEWTVL to 26855 10NEWTVL	1	69-138	210	210
1165	outage of 26886 10NEWTVL to 26855 10NEWTVL	2	69-138	210	210
1167	outage of 26887 10NW to 26854 10NW	1	69-138	210	210
1170	outage of 26887 10NW to 26854 10NW	2	69-138	210	210
1172	outage of 26890 10POINT to 26888 10POINT	1	69-138	210	210
1175	outage of 26890 10POINT to 26888 10POINT	2	69-138	210	210
1207	outage of 26855 10NEWTVL to 27079 11CLVRPR	1	138	210-211	210-211
1210	outage of 26857 10NEWTVL to 27552 14COLE 5	1	161	210-214	210-214
1212	outage of 26861 10ABBRWN to 27617 14HENDR4	1	138	210-214	210-214
1215	outage of 26904 10CATO_T to 27871 16PETE	1	138	210-216	210-216
1217	outage of 27000 11PINEV to 27001 11POCKET	1	500	211	211
1220	outage of 27000 11PINEV to 27011 11PINEVI	1	500-345	211	211
1222	outage of 27002 11ALCALD to 27004 11BRWN N	1	345	211	211
1225	outage of 27002 11ALCALD to 27011 11PINEVI	1	345	211	211
1227	outage of 27002 11ALCALD to 27016 11ALCALD	1	345-161	211	211
1230	outage of 27004 11BRWN N to 11HARDN	1	345	211	211
1232	outage of 27004 11BRWN N to 27011 11PINEVI	1	345	211	211
1235	outage of 27004 11BRWN N to 27015 11W LEXN	1	345	211	211
1237	outage of 27004 11BRWN N to 27064 11BRWN N	1	345-138	211	211
1240	outage of 27004 11BRWN N to 27064 11BRWN N	2			
1242	outage of 27005 11GHENT to 27014 11W FRNK	1	345	211	211
1245	outage of 27005 11GHENT to 27015 11W LEXN	1	345	211	211
1247	outage of 27005 11GHENT to 27092 11GHENT	1	345-138	211	211
1250	outage of 27005 11GHENT to 27092 11GHENT	2	345-138	211	211
1252	outage of 27006 11HARDN to 27012 11SMITH	1	345	211	211
1253	Multiple outage of 27006 11HARDN to 27012 11SMITH & SMITH #2(250MW)		345	211	211
1255	outage of 27006 11HARDN to 27100 11HARDN	1	345-138	211	211
1256	outage of 27006 11HARDN to 27100 11HARDN	2	345-138	211	211
1257	outage of 27011 11PINEVI to 27038 11PINEVI	1	345-161	211	211
1260	outage of 27012 11SMITH to 27142 11SMITH	1	345-138	211	211
1262	outage of 27015 11W LEXN to 27153 11W LEXN	1	345-138	211	211
1272	outage of 27020 11CORY T to 27028 11GR RV	1	161	211	211

No.	Contingency	Ckt	Base kV	Area	Zone
1275	outage of 27020 11CORY T to 27035 11MORGNF	1	161	211	211
1280	outage of 27022 11CRITTE to 27033 11LIV C	1	161	211	211
1282	outage of 27022 11CRITTE to 27035 11MORGNF	1	161	211	211
1285	outage of 27022 11CRITTE to 27191 11CRITTE	1	161-69	211	211
1287	outage of 27025 11EARL N to 27033 11LIV C	1	161	211	211
1290	outage of 27025 11EARL N to 27042 11RQ TAP	1	161	211	211
1295	outage of 27025 11EARL N to 27198 11EARL N	1	161-69	211	211
1297	outage of 27028 11GR RV to 27042 11RQ TAP	1	161	211	211
1300	outage of 27028 11GR RV to 27095 11GR RVR	1	161-138	211	211
1302	outage of 27028 11GR RV to 27095 11GR RVR	2	161-138	211	211
1303	outage of 27028 11GR RV to 27095 11GR RVR	3	161-138	211	211
1305	outage of 27029 11GRAHVL to 27043 11S PADU	1	161	211	211
1320	outage of 27033 11LIV C to 27043 11S PADU	1	161	211	211
1322	outage of 27035 11MORGNF to 27255 11MORGNF	1	161-69	211	211
1337	outage of 27043 11S PADU to 27276 11S PADU	1	161-69	211	211
1345	outage of 27051 11ADAMS to 27097 11HAEFLI	1	138	211	211
1347	outage of 27051 11ADAMS to 27148 11TYRONE	1	138	211	211
1350	outage of 27057 11BKR LN to 27064 11BRWN N	1	138	211	211
1352	outage of 27057 11BKR LN to 27101 11HIGBY	1	138	211	211
1355	outage of 27058 11BARDST to 27063 11BRWNCT	1	138	211	211
1357	outage of 27058 11BARDST to 27124 11NELSON	1	138	211	211
1360	outage of 27061 11BONNIE to 27141 11SHREWS	1	138	211	211
1362	outage of 27061 11BONNIE to 27152 11W LEBA	1	138	211	211
1365	outage of 27061 11BONNIE to 27173 11BONNI	1	138-69	211	211
1367	outage of 27063 11BRWNCT to 27064 11BRWN N	1	138	211	211
1370	outage of 27063 11BRWNCT to 27066 11BRWNT1	1	138	211	211
1372	outage of 27063 11BRWNCT to 27067 11BRWNT2	1	138	211	211
1375	outage of 27064 11BRWN N to 27066 11BRWNT1	1	138	211	211
1377	outage of 27064 11BRWN N to 27067 11BRWNT2	1	138	211	211
1380	outage of 27064 11BRWN N to 27078 11CLAYS	1	138	211	211
1382	outage of 27064 11BRWN N to 27101 11HIGBY	1	138	211	211
1385	outage of 27064 11BRWN N to 27132 11PISGAH	1	138	211	211
1387	outage of 27064 11BRWN N to 27148 11TYRONE	1	138	211	211
1390	outage of 27065 11BRWN P to 27066 11BRWNT1	1	138	211	211
1392	outage of 27065 11BRWN P to 27067 11BRWNT2	1	138	211	211
1397	outage of 27065 11BRWN P to 27118 11MERCR	1	138	211	211
1407	outage of 27078 11CLAYS to 27101 11HIGBY	1	138	211	211
1410	outage of 27079 11CLVRPR to 27094 11GR STL	1	138	211	211
1412	outage of 27079 11CLVRPR to 27099 11HARDBG	1	138	211	211
1415	outage of 27079 11CLVRPR to 27144 11TIPTOP	1	138	211	211
1422	outage of 27085 11ETOWN to 27100 11HARDN	1	138	211	211
1425	outage of 27085 11ETOWN to 27124 11NELSON	1	138	211	211
1427	outage of 27085 11ETOWN to 27203 11ETOWN	1	138-69	211	211
1430	outage of 27088 11FAWKES to 27209 11FAWKES	1	138-69	211	211
1432	outage of 27088 11FAWKES to 27209 11FAWKES	2	138-69	211	211

No.	Contingency	Ckt	Base kV	Area	Zone
1437	outage of 27091 11FFRT E to 27148 11TYRONE	1	138	211	211
1440	outage of 27092 11GHENT to 27120 11MIDWAY	1	138	211	211
1442	outage of 27094 11GR STL to 27095 11GR RVR	1	138	211	211
1445	outage of 27094 11GR STL to 27142 11SMITH	1	138	211	211
1447	outage of 27094 11GR STL to 27215 11GR STL	1	138-69	211	211
1450	outage of 27095 11GR RVR to 27126 11OHIO C	1	138	211	211
1452	outage of 27095 11GR RVR to 27126 11OHIO C	2	138	211	211
1455	outage of 27095 11GR RVR to 27216 11GR RVR	1	138-69	211	211
1457	outage of 27095 11GR RVR to 27216 11GR RVR	2	138-69	211	211
1460	outage of 27097 11HAEFLI to 27149 11VILEY	1	138	211	211
1462	outage of 27097 11HAEFLI to 27153 11W LEXN	1	138	211	211
1465	outage of 27099 11HARDBG to 27100 11HARDN	1	138	211	211
1467	outage of 27100 11HARDN to 27138 11ROGERS	1	138	211	211
1470	outage of 27100 11HARDN to 27222 11HARDN	1	138-69	211	211
1472	outage of 27100 11HARDN to 27222 11HARDN	2	138-69	211	211
1477	outage of 27101 11HIGBY to 27136 11REYNOL	1	138	211	211
1480	outage of 27101 11HIGBY to 27225 11HIGB A	1	138-69	211	211
1482	outage of 27101 11HIGBY to 27226 11HIGB B	1	138-69	211	211
1487	outage of 27108 11LEBANO to 27118 11MERCR	1	138	211	211
1490	outage of 27108 11LEBANO to 27152 11W LEBA	1	138	211	211
1492	outage of 27108 11LEBANO to 27239 11LEBANO	1	138-69	211	211
1495	outage of 27108 11LEBANO to 27239 11LEBANO	2	138-69	211	211
1500	outage of 27109 11LEITCH to 27240 11LEITCH	1	138-69	211	211
1502	outage of 27120 11MIDWAY to 27153 11W LEXN	1	138	211	211
1505	outage of 27126 110HIO C to 27141 11SHREWS	1	138	211	211
1507	outage of 27126 110HIO C to 27259 110HIO C	1	138-69	211	211
1510	outage of 27132 11PISGAH to 27153 11W LEXN	1	138	211	211
1512	outage of 27132 11PISGAH to 27266 11PISGAH	1	138-69	211	211
1515	outage of 27135 11POND C to 27144 11TIPTOP	1	138	211	211
1517	outage of 27138 11ROGERS to 27144 11TIPTOP	1			
1520	outage of 27138 11ROGERS to 27274 11ROGERS	1	138-69	211	211
1522	outage of 27142 11SMITH to 27261 11OMU	1	138-69	211	211
1525	outage of 27142 11SMITH to 27261 11OMU	2	138-69	211	211
1527	outage of 27142 11SMITH to 27261 11OMU	3	138-69	211	211
1530	outage of 27142 11SMITH to 27261 11OMU	4	138-69	211	211
1532	outage of 27142 11SMITH to 27261 11OMU	5	138-69	211	211
1535	outage of 27142 11SMITH to 27261 11OMU	6	138-69	211	211
1537	outage of 27148 11TYRONE to 27289 11TYRONE	1	138-69	211	211
1540	outage of 27149 11VILEY to 27153 11W LEXN	1	138	211	211
1615	outage of 27216 11GR RVR to 27306 11GR RVR	1	69-34.5	211	211
1685	outage of 27028 11GR RV to 27553 14WILSO5	<u>:</u>	161	211-214	211-214
1687	outage of 27079 11CLVRPR to 27615 14N.HAR4	1	138	211-214	211-214
1690	outage of 27099 11HARDBG to 27615 14N.HAR4	<u>·</u> 1	138	211-214	211-214
1725	outage of 27561 14WILSO7 to 27553 14WILSO5	<u>'</u>	345-161	214	214
1730	outage of 27561 14WILSO7 to 27562 14REID 7	<u>'</u>	345	214	214
		·		-	-

1735 c 1740 c 1745 c 1747 c 1750 c 1752 c 1755 c 1765 c	outage of 27561 14WILSO7 to 27563 14COLE 7	1			
1740 c 1745 c 1747 c 1750 c 1752 c 1755 c 1765 c	Dutage of 27562 14RFID 7 to 27551 14RFID 5	1			
1745 c 1747 c 1750 c 1752 c 1755 c 1765 c	Juliage of 27002 141(ElD 7 to 27001 141(ElD 3		345-161	214	214
1747 c 1750 c 1752 c 1755 c 1765 c	outage of 27563 14COLE 7 to 27552 14COLE 5	1	345-161	214	214
1750 c 1752 c 1755 c 1765 c	outage of 27551 14REID 5 to 27559 14DAVIS5	1	161	214	214
1752 c	outage of 27551 14REID 5 to 27560 14HENDR5	1	161	214	214
1755 c	outage of 27551 14REID 5 to 27619 14HOPCO5	1	161	214	214
1765	outage of 27552 14COLE 5 to 27557 14HANCO5	1	161	214	214
	outage of 27552 14COLE 5 to 27564 14NATAL5	1	161	214	214
1767 d	outage of 27557 14HANCO5 to 27559 14DAVIS5	1	161	214	214
	outage of 27558 14SKILM5 to 27564 14NATAL5	1	161	214	214
1770 c	outage of 27558 14SKILM5 to 27616 14N.HAR5	1	161	214	214
1775 d	outage of 27560 14HENDR5 to 27617 14HENDR4	1	161-138	214	214
1780 d	outage of 27615 14N.HAR4 to 27616 14N.HAR5	1	138-161	214	214
1790 d	outage of 27618 14LIVIN5 to 33352 5RENSHAW	1	161	214-361	214-352
1815 d	outage of 27824 16PETE to 27871 16PETE	Е	345-138	216	216
1817 (outage of 27824 16PETE to 27871 16PETE	W	345-138	216	216
1912 (outage of 31350 NORRIS to 31351 NORRIS	1	345-138	356	321
1915 (outage of 31289 MUDDY to 31351 NORRIS	1	138	356	321
1917 c	outage of 30008 ALBION to 30009 ALBION R	1	345-138	356	323
1920 d	outage of 30009 ALBION R to 30010 ALBION	1	138	356	323
1922 (butage of 30010 ALBION to 30439 CROSSVL	1	138	356	323
1927 (outage of 30010 ALBION to 31367 OLNEY	1	138	356	323
1930 d	outage of 30878 KINMUNDY to 30966 LOUISVL	1	138	356	323
1932	outage of 30931 LAWRNCVL to 31367 OLNEY	1	138	356	323
1935 d	outage of 30966 LOUISVL to 31331 NEWTON	1	138	356	323
1937 c	outage of 30966 LOUISVL to 31367 OLNEY	1	138	356	323
1940 d	outage of 30931 LAWRNCVL to 31626 ROBNSNAM	1	138	356	323-310
1947 d	outage of 31331 NEWTON to 31626 ROBNSNAM	1	138	356	323-310
1950 d	outage of 30439 CROSSVL to 31351 NORRIS	1	138	356	323-321
2010	outage of 27097 11HAEFLI to 27053 11AMERI	1	138	211	211
2012	outage of 25949 08SPEED to 25181 07RAMSY5	1	345	207-208	207-281
2015	outage of 26128 08WASH J to 26083 08PEATAP	1	138	208	281
2017	outage of 26128 08WASH J to 26077 08WASHMU	1	138	208	281
3010 N	Multiple element outage Three Winding Transformer at Montgomery 500-1 147 1			147	166
3040 N	Multiple element outage Three Winding Transformer at Hopkinsville 161-1 147			147	166
3120 N	Multiple outage of 27028 11GR RV to 27553 14WILSO5 & SMITH #2(250MW)		161	211-214	211-214
3130 N	Multiple outage of 27028 11GR RV to 27553 14WILSO5 & PARADISE (358MW)		161	211-214	211-214
3510 N	Multiple outage of 27094 11GR STL to 27142 11SMITH & SMITH #2(250MW)		138	211	211
3520 N	Multiple outage of 27094 11GR STL to 27142 11SMITH & SMITH #1(150MW)		138	211	211
	Multiple outage of 27012 11SMITH to 27142 11SMITH & SMITH #2(250MW)		345-138	211	211
3540 N	Multiple outage of 27012 11SMITH to 27142 11SMITH & SMITH #1(150MW)		345-138	211	211
3600 N	Multiple outage of OMU ESS SMITH Unit #1 & #2 (400MW)				
4230	outage of 18429 5MONTGOM to 18658 5 E	1	161	147	166
4232	outage of 18429 5MONTGOM to 18683 5CLARKSV	1	161	147	166
4235	outage of 18429 5MONTGOM to 18844 5BARKERS	1	161	147	166

4270 Outage of 18425 SMONTGOM to 19122 I KRRWD T	No.	Contingency	Ckt	Base kV	Area	Zone
4242 outage of 18431 SDAVIDSO to 18719 SW NASH 1 161 147 166 4245 outage of 18431 SDAVIDSO to 18720 SPADNOR 1 161 147 166 4247 outage of 18433 SMAURY to 18971 SOKONST 1 161 147 166 4255 outage of 18433 SMAURY to 1971 SCALLTIT 1 161 147 166 4257 outage of 18450 SWILSNTN to 18731 SCALLTIT 1 161 147 166 4260 outage of 18450 SWILSNTN to 18731 SCHERMTA 1 161 147 166 4262 outage of 18450 SWILSNTN to 18913 SCLADV T 1 161 147 166 4267 outage of 18450 SWILSNTN to 19038 SCLEVE 1 161 147 166 4267 outage of 18450 SWILSNTN to 19038 SCLEVE 1 161 147 166 4267 outage of 18645 SOLARS SCLARKSV to 1903 SCLEVE 1 161 147 166 4267 outage of 18645 SWILSNTN to 1903 SCLEVE 1 161 147 166 4267 <td< td=""><td>4237</td><td>outage of 18429 5MONTGOM to 19162 5UNION C</td><td>1</td><td>161</td><td>147</td><td>166</td></td<>	4237	outage of 18429 5MONTGOM to 19162 5UNION C	1	161	147	166
4245 outage of 18431 SDAVIDSO to 18720 SRADNOR 1 161 147 168 4247 outage of 18433 SAAURY to 1807 SMONSHT 1 161 147 168 4255 outage of 18433 SMAURY to 1902 FENERCK 1 161 147 166 4257 outage of 18433 SMAURY to 19121 SRLLYHLT 1 161 147 166 4260 outage of 18495 SWILSHTN to 18713 FENERITA 1 161 147 166 4262 outage of 18495 SWILSHTN to 18984 SGLADYT 1 161 147 166 4265 outage of 18495 SWILSHTN to 19808 SCENT PK 1 161 147 166 4267 outage of 18495 SWILSHTN to 19808 SCENT PK 1 161 147 166 4270 outage of 18495 SWILSHTN to 18883 SCLARKSV 1 161 147 166 4287 outage of 18695 SOAR PLA to 18685 SCLARKSV 1 161 147 166 4280 outage of 18695 SSCARKSV to 18886 SOANSN 2 1 161 147 166 4295	4240	outage of 18429 5MONTGOM to 19221 5KRKWD T	1	161	147	166
4247 outage of 18433 SMAURY to 19871 SMONSNT 1 161 147 168 4255 outage of 18433 SMAURY to 19121 SRLLYHLT 1 161 147 166 4257 outage of 18433 SMAURY to 19121 SRLLYHLT 1 161 147 166 4260 outage of 18405 SWILSNTN to 18731 SHERMITA 1 161 147 166 4262 outage of 18405 SWILSNTN to 18914 SGLADV T 1 161 147 166 4267 outage of 18405 SWILSNTN to 18914 SGLADV T 1 161 147 166 4267 outage of 18405 SWILSNTN to 19133 SLKEVIE 1 161 147 166 4287 outage of 18645 SOAK PLA to 18083 SCLARKSV 1 161 147 166 4287 outage of 18633 SKLARSV to 18683 SCLARKSV 1 161 147 166 4290 outage of 18685 SCLARKSV to 18685 SSTARKY 1 161 147 166 4295 outage of 18685 SCLARKSV to 18785 SST BETTH 1 161 147 166 4340 <	4242	outage of 18431 5DAVIDSO to 18719 5W NASH	1	161	147	166
4255 outage of 18433 SMAURY to 19040 SHENPECK 1 161 147 166 4257 outage of 18450 SWILSNTN to 18711 SGALLATI 1 161 147 166 4260 outage of 18450 SWILSNTN to 18731 SHERMITA 1 161 147 166 4262 outage of 18450 SWILSNTN to 18931 SHERMITA 1 161 147 166 4265 outage of 18450 SWILSNTN to 18914 SGLADV T 1 161 147 166 4267 outage of 18450 SWILSNTN to 19913 SLKEVIE 1 161 147 166 4270 outage of 18650 SWILSNTN to 19913 SLKEVIE 1 161 147 166 4287 outage of 18653 SKING SPR to 18883 SCLARKSV 1 161 147 166 4297 outage of 18653 SKING SPR to 18898 SDAVSN 2 1 161 147 166 4290 outage of 18693 SKING SPR to 18698 SDAVSN 2 1 161 147 166 4300 outage of 18693 SCLARKSV to 18930 SST BETH 1 161 147 166	4245	outage of 18431 5DAVIDSO to 18720 5RADNOR	1	161	147	166
4257	4247	outage of 18433 5MAURY to 18671 5MONSNT	1	161	147	166
4260 outage of 18450 SWILSNTN to 18711 SGALLATI 1 161 147 166 4262 outage of 18450 SWILSNTN to 18731 SHERMITA 1 161 147 166 4265 outage of 18450 SWILSNTN to 18914 SGLADV T 1 161 147 166 4267 outage of 18450 SWILSNTN to 19913 SLKEVIE 1 161 147 166 4270 outage of 18450 SWILSNTN to 19131 SLKEVIE 1 161 147 166 4287 outage of 18645 SOAK PLA to 18685 SCLARKSV 1 161 147 166 4289 outage of 18645 SOAK PLA to 18207 SEBERATWAL 1 161 147 166 4290 outage of 18685 SCLARKSV to 18880 SDUNBAR 1 161 147 166 4305 outage of 18685 SCLARKSV to 18768 SPORT SS 1 161 147 166 4347 outage of 18689 SPORT SS 1 161 147 166 4350 outage of 18695 SPORT SV to 19031 SS. SCOT 1 161 147 166 4350 outage	4255	outage of 18433 5MAURY to 19040 5HENPECK	1	161	147	166
4282 outage of 18450 SWILSNTN to 18731 SHERMITA 1 161 147 168 42855 outage of 18450 SWILSNTN to 18914 SGLADV T 1 161 147 166 4287 outage of 18450 SWILSNTN to 19086 SCENT PK 1 161 147 166 4270 outage of 18450 SWILSNTN to 19131 SLKEVIE 1 161 147 166 4287 outage of 18645 SOAK PLA to 18683 SCLARKSV 1 161 147 166 4295 outage of 18673 SKNG SPR to 18698 SDAVSN 2 1 161 147 166 4300 outage of 18693 SCLARKSV to 19163 SST BETH 1 161 147 166 4305 outage of 18695 SFRIK KY to 1876 SPORT SS 1 161 147 166 4347 outage of 18695 SFRIK KY to 1890 SDAVSN 2 1 161 147 166 4350 outage of 18695 SFRIK KY to 1876 SCOTTS SS 1 161 147 166 4352 outage of 18696 SDAVSN 2 to 1874 SDAVSNRD 1 161 147 166 4355	4257	outage of 18433 5MAURY to 19121 5RLLYHLT	1	161	147	166
4285 outage of 18450 SWILSNTN to 18914 SGLADV T 1 161 147 168 4287 outage of 18450 SWILSNTN to 19095 SCENT PK 1 161 147 166 4270 outage of 18450 SWILSNTN to 19131 SLKEVIE 1 161 147 166 4287 outage of 18645 SOAK PLA to 19836 SCLARKSV 1 161 147 166 4290 outage of 18635 SOAK PLA to 19207 SBEARWAL 1 161 147 166 4290 outage of 18635 SCAR SCAR SCAR SCAR SCAR SCAR SCAR SCAR	4260	outage of 18450 5WILSNTN to 18711 5GALLATI	1	161	147	166
4287 outage of 18450 SWILSNTN to 19086 SCENT PK 1 161 147 166 4270 outage of 18450 SWILSNTN to 19131 SLKEVIE 1 161 147 166 4287 outage of 18845 SOAK PLA to 18883 SCLARKSV 1 161 147 166 4290 outage of 18645 SOAK PLA to 19803 SELARKSV 1 161 147 166 4295 outage of 18673 SKNG SPR to 18698 SDAVSN 2 1 161 147 166 4300 outage of 18683 SCLARKSV to 18980 5DUNBAR 1 161 147 166 4305 outage of 18683 SCLARKSV to 19163 SST BETH 1 161 147 166 4307 outage of 18693 SDAVSN 2 to 19163 SS ST BETH 1 161 147 166 4350 outage of 18693 SDAVSN 2 to 19163 SS, SCOT 1 161 147 166 4350 outage of 18698 SDAVSN 2 to 1970 SGRASL 1 161 147 166 4355 outage of 18698 SDAVSN 2 to 1970 SGRASL 1 161 147 166 4350	4262	outage of 18450 5WILSNTN to 18731 5HERMITA	1	161	147	166
4270 outage of 18450 SWILSNTN to 19131 SLKEVIE 1 161 147 166 4287 outage of 18645 SOAK PLA to 18683 SCLARKSV 1 161 147 166 4290 outage of 18673 SKNG SPR to 18698 SDAVSN 2 1 161 147 166 4295 outage of 18673 SKNG SPR to 18698 SDAVSN 2 1 161 147 166 4300 outage of 18673 SKNG SPR to 18698 SDAVSN 2 1 161 147 166 4305 outage of 18683 SCLARKSV to 19183 SST BETH 1 161 147 166 4347 outage of 18695 SFRNK KY to 18796 SPORT SS 1 161 147 166 4350 outage of 18695 SFRNK KY to 18796 SPORT SS 1 161 147 166 4350 outage of 18698 SDAVSN 2 to 18740 SDAVSND 1 161 147 166 4352 outage of 18698 SDAVSN 2 to 18740 SDAVSND 1 161 147 166 4357 outage of 18710 SGALTN P to 19096 SLAKEVIE 1 161 147 166 4360	4265	outage of 18450 5WILSNTN to 18914 5GLADV T	1	161	147	166
4287 outage of 18845 50AK PLA to 18883 SCLARKSV 1 161 147 168 4290 outage of 18845 50AK PLA to 19207 SEEARWAL 1 161 147 166 4295 outage of 18673 SKNG SPR to 18698 5DAVSN 2 1 161 147 166 4300 outage of 18683 5CLARKSV to 18980 5DUNBAR 1 161 147 166 4305 outage of 18683 5CLARKSV to 18796 5PORT SS 1 161 147 166 4347 outage of 18693 SCOTTSV to 19031 5S. SCOT 1 161 147 166 4350 outage of 18698 SDAVSN 2 to 18740 5DAVSNRD 1 161 147 166 4352 outage of 18698 SDAVSN 2 to 19070 5CRASLT 1 161 147 166 4357 outage of 18710 5GALTN P to 19508 5HOEGANT 1 161 147 166 4350 outage of 18710 5GALTN P to 19808 5GALLATZ 1 161 147 166 4360 outage of 18710 5GALTN P to 19885 5GALLATZ 1 161 147 166 4367	4267	outage of 18450 5WILSNTN to 19086 5CENT PK	1	161	147	166
4290 outage of 18645 SOAK PLA to 19207 SBEARWAL 1 161 147 166 4295 outage of 18673 SKNG SPR to 18688 SDAVSN 2 1 161 147 166 4300 outage of 18683 SCLARKSV to 18980 SDUNBAR 1 161 147 166 4305 outage of 18683 SCLARKSV to 19163 SST BETH 1 161 147 166 4347 outage of 18685 SFRIK KY to 19163 SST BETH 1 161 147 166 4350 outage of 18695 SDAVSN 2 to 19070 SGARST SCOT 1 161 147 166 4352 outage of 18698 SDAVSN 2 to 19070 SGARSL T 1 161 147 166 4355 outage of 18710 SGALTN P to 19509 SHOEGANT 1 161 147 166 4360 outage of 18710 SGALTN P to 19808 SGALATZ 1 161 147 166 4362 outage of 18710 SGALTN P to 18885 SGALLATZ 1 161 147 166 4365 outage of 18710 SGALTAT P to 18885 SGALLATZ 1 161 147 166 4370 <td>4270</td> <td>outage of 18450 5WILSNTN to 19131 5LKEVIE</td> <td>1</td> <td>161</td> <td>147</td> <td>166</td>	4270	outage of 18450 5WILSNTN to 19131 5LKEVIE	1	161	147	166
4295 outage of 18673 5KNG SPR to 18688 5DAVSN 2 1 161 147 166 4300 outage of 18683 5CLARKSV to 18886 5DUNBAR 1 161 147 166 4305 outage of 18683 5CLARKSV to 1963 5ST BETH 1 161 147 166 4347 outage of 18695 5FRNK KY to 18796 5PORT SS 1 161 147 166 4350 outage of 18697 5SCOTTSV to 19031 5S. SCOT 1 161 147 166 4352 outage of 18698 5DAVSN 2 to 18740 5DAVSNRD 1 161 147 166 4352 outage of 1870 5GALTN P to 19509 5HOEGANT 1 161 147 166 4357 outage of 1870 5GALTN P to 19509 5HOEGANT 1 161 147 166 4357 outage of 1870 5GALTN P to 19809 5LAKEVIE 1 161 147 166 4360 outage of 18710 5GALTN P to 19885 5GALLAT2 1 161 147 166 4367 outage of 18710 5GALTN P to 19885 5GALLAT2 1 161 147 166 4370	4287	outage of 18645 5OAK PLA to 18683 5CLARKSV	1	161	147	166
4300 outage of 18683 SCLARKSV to 18980 SDUNBAR 1 161 147 166 4305 outage of 18683 SCLARKSV to 19163 5ST BETH 1 161 147 166 4347 outage of 18693 SFRNK KY to 18796 SPORT SS 1 161 147 166 4350 outage of 18695 SERDIK KY to 18796 SPORT SS 1 161 147 166 4352 outage of 18698 SDAVSN 2 to 18740 SDAVSNRD 1 161 147 166 4355 outage of 18698 SDAVSN 2 to 19070 SGRASL T 1 161 147 166 4357 outage of 18710 SGALTN P to 19509 SHOEGANT 1 161 147 166 4360 outage of 18710 SGALTN P to 19805 SALKEVIE 1 161 147 166 4362 outage of 18710 SGALTN P to 18885 SGALLAT2 1 161 147 166 4365 outage of 18810 SCAIRO B to 18885 SGALLAT2 1 161 147 166 4367 outage of 18711 SGALLATI to 19154 SHARTSVI 1 161 147 166 4372 outage of 18713 SLAFAYET to 19031 SS. SCOT 1 161 147 1	4290	outage of 18645 5OAK PLA to 19207 5BEARWAL	1	161	147	166
4305 outage of 18683 SCLARKSV to 19163 SST BETH 1 161 147 166 4347 outage of 18695 SFRNK KY to 18796 SPORT SS 1 161 147 166 4350 outage of 18697 SSCOTTSV to 19031 SS. SCOT 1 161 147 166 4352 outage of 18698 SDAVSN 2 to 18740 SDAVSNRD 1 161 147 166 4355 outage of 18698 SDAVSN 2 to 19070 SGRASL T 1 161 147 166 4355 outage of 18710 SGALTN P to 19509 SHOEGANT 1 161 147 166 4360 outage of 18710 SGALTN P to 19808 SGALLAT2 1 161 147 166 4362 outage of 18801 SCAIRO B to 18885 SGALLAT2 1 161 147 166 4365 outage of 18711 SGALLATI to 18890 SLASCASS 1 161 147 166 4370 outage of 18711 SGALLATI to 19805 SLSCASS 1 161 147 166 4372 outage of 18711 SGALLATI to 19815 SLAFAYET to 19154 SHARTSVI 1 161 147 166	4295	outage of 18673 5KNG SPR to 18698 5DAVSN 2	1	161	147	166
4347 outage of 18695 5FRNK KY to 18796 5PORT SS 1 161 147 166 4350 outage of 18697 5SCOTTSV to 19031 5S. SCOT 1 161 147 166 4352 outage of 18698 5DAVSN 2 to 18740 5DAVSNRD 1 161 147 166 4355 outage of 18710 5GALTN P to 19505 5HOEGANT 1 161 147 166 4360 outage of 18710 5GALTN P to 19206 5LAKEVIE 1 161 147 166 4362 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4365 outage of 18711 5GALLATI to 18895 5LASCASS 1 161 147 166 4367 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4367 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4370 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4397	4300	outage of 18683 5CLARKSV to 18980 5DUNBAR	1	161	147	166
4350 outage of 18697 SSCOTTSV to 19031 5S. SCOT 1 161 147 166 4352 outage of 18698 5DAVSN 2 to 18740 5DAVSNRD 1 161 147 166 4355 outage of 18698 5DAVSN 2 to 19070 5GRASL T 1 161 147 166 4357 outage of 18710 5GALTN P to 19509 5HOEGANT 1 161 147 166 4360 outage of 18710 5GALTN P to 19205 5LAKEVIE 1 161 147 166 4362 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4365 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4367 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4370 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4372 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4380 outage of 18713 5NASH to 18725 5SAUNDER 1 161 147 166 4380	4305	outage of 18683 5CLARKSV to 19163 5ST BETH	1	161	147	166
4352 outage of 18698 5DAVSN 2 to 18740 5DAVSNRD 1 161 147 166 4355 outage of 18698 5DAVSN 2 to 19070 5GRASL T 1 161 147 166 4357 outage of 18710 5GALTN P to 19509 5HOEGANT 1 161 147 166 4360 outage of 18710 5GALTN P to 19206 5LAKEVIE 1 161 147 166 4362 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4365 outage of 18861 5CAIRO B to 18885 5GALLAT2 1 161 147 166 4367 outage of 18711 5GALLATI to 18980 5LASCASS 1 161 147 166 4370 outage of 18711 5GALLATI to 19154 5HARTSVI 1 161 147 166 4372 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4380 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4392 outage of 18715 NASH to 18722 5WHITES 1 161 147 166 4392	4347	outage of 18695 5FRNK KY to 18796 5PORT SS	1	161	147	166
4355 outage of 18698 SDAVSN 2 to 19070 5GRASL T 1 161 147 166 4357 outage of 18710 5GALTN P to 19509 5HOEGANT 1 161 147 166 4360 outage of 18710 5GALTN P to 19206 5LAKEVIE 1 161 147 166 4362 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4365 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4367 outage of 18711 5GALLATI to 19920 5LEB IPT 1 161 147 166 4370 outage of 18711 5GALLATI to 19124 5HARTSVI 1 161 147 166 4372 outage of 18713 SLAFAYET to 19031 5S. SCOT 1 161 147 166 4380 outage of 18713 SLAFAYET to 19154 SHARTSVI 1 161 147 166 4390 outage of 18713 SLAFAYET to 19125 SCOOPERT 1 161 147 166 4397 outage of 18718 SN NASH to 18722 SWHITES 1 161 147 166 4402	4350	outage of 18697 5SCOTTSV to 19031 5S. SCOT	1	161	147	166
4357 outage of 18710 SGALTN P to 19509 SHOEGANT 1 161 147 166 4360 outage of 18710 SGALTN P to 19206 SLAKEVIE 1 161 147 166 4362 outage of 18710 SGALTN P to 18885 SGALLAT2 1 161 147 166 4365 outage of 18711 SGALLATI to 18895 SGALLAT2 1 161 147 166 4367 outage of 18711 SGALLATI to 18890 SLASCASS 1 161 147 166 4370 outage of 18711 SGALLATI to 19020 SLEB IPT 1 161 147 166 4372 outage of 18713 SLAFAYET to 199134 SHARTSVI 1 161 147 166 4380 outage of 18713 SLAFAYET to 199145 SHARTSVI 1 161 147 166 4382 outage of 18713 SLAFAYET to 19154 SHARTSVI 1 161 147 166 4390 outage of 18715 SSPRNGFD to 19225 SCOOPERT 1 161 147 166 4397 outage of 18717 SN NASH to 18722 SWHITES 1 161 147 166 4402	4352	outage of 18698 5DAVSN 2 to 18740 5DAVSNRD	1	161	147	166
4360 outage of 18710 5GALTN P to 19206 5LAKEVIE 1 161 147 166 4362 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4365 outage of 18861 5CAIRO B to 18885 5GALLAT2 1 161 147 166 4367 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4370 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4372 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4380 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4391 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4392 outage of 18715 5N NASH to 18722 5WHITES 1 161 147 166 4402	4355	outage of 18698 5DAVSN 2 to 19070 5GRASL T	1	161	147	166
4362 outage of 18710 5GALTN P to 18885 5GALLAT2 1 161 147 166 4365 outage of 18861 5CAIRO B to 18885 5GALLAT2 1 161 147 166 4367 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4370 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4372 outage of 18711 5GALLATI to 19154 5HARTSVI 1 161 147 166 4380 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18718 5S NASH to 18739 5DONELSO 1 161 147 166 4415 outage of 18719 5W NASH to 18730 5DONELSO 1 161 147 166 4420 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 <td>4357</td> <td>outage of 18710 5GALTN P to 19509 5HOEGANT</td> <td>1</td> <td>161</td> <td>147</td> <td>166</td>	4357	outage of 18710 5GALTN P to 19509 5HOEGANT	1	161	147	166
4365 outage of 18861 5CAIRO B to 18885 5GALLAT2 1 161 147 166 4367 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4370 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4372 outage of 18711 5GALLATI to 19154 5HARTSVI 1 161 147 166 4380 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4421 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166	4360	outage of 18710 5GALTN P to 19206 5LAKEVIE	1	161	147	166
4367 outage of 18711 5GALLATI to 18890 5LASCASS 1 161 147 166 4370 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4372 outage of 18711 5GALLATI to 19154 5HARTSVI 1 161 147 166 4380 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4412 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 <	4362	outage of 18710 5GALTN P to 18885 5GALLAT2	1	161	147	166
4370 outage of 18711 5GALLATI to 19020 5LEB IPT 1 161 147 166 4372 outage of 18711 5GALLATI to 19154 5HARTSVI 1 161 147 166 4380 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4390 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4397 outage of 18717 5N NASH to 18727 5SAUNDER 1 161 147 166 4402 outage of 18718 5S NASH to 18727 5SAUNDER 1 161 147 166 4412 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4415 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18720 5DAVSNRD 1 161 147 166 4421 outage of 18719 5W NASH to 19053 5CRAIGHE 1 161 147 166 4422 outage of 18719 5W NASH to 19053 5CRAIGHE 1 161 147 166	4365	outage of 18861 5CAIRO B to 18885 5GALLAT2	1	161	147	166
4372 outage of 18711 5GALLATI to 19154 5HARTSVI 1 161 147 166 4380 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18718 5S NASH to 18727 5SAUNDER 1 161 147 166 4412 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18719 5W NASH to 18730 5DONELSO 1 161 147 166 4420 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 19053 5CRAIGHE 1 161 147 166 4422 outage of 18719 5W NASH to 19053 5CRAIGHE 1 161 147 166 4425 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166	4367	outage of 18711 5GALLATI to 18890 5LASCASS	1	161	147	166
4380 outage of 18713 5LAFAYET to 19031 5S. SCOT 1 161 147 166 4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4412 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4415 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19053 5CRAIGHE 1 161 147 166 4425 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18720 5RADNOR to 18735 5NOLNVLE 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166	4370	outage of 18711 5GALLATI to 19020 5LEB IPT	1	161	147	166
4382 outage of 18713 5LAFAYET to 19154 5HARTSVI 1 161 147 166 4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18717 5N NASH to 18727 5SAUNDER 1 161 147 166 4412 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4420 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4422 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4425 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166	4372	outage of 18711 5GALLATI to 19154 5HARTSVI	1	161	147	166
4390 outage of 18715 5SPRNGFD to 19225 5COOPERT 1 161 147 166 4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18717 5N NASH to 18727 5SAUNDER 1 161 147 166 4412 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 <	4380	outage of 18713 5LAFAYET to 19031 5S. SCOT	1	161	147	166
4397 outage of 18717 5N NASH to 18722 5WHITES 1 161 147 166 4402 outage of 18717 5N NASH to 18727 5SAUNDER 1 161 147 166 4412 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 </td <td>4382</td> <td>outage of 18713 5LAFAYET to 19154 5HARTSVI</td> <td>1</td> <td>161</td> <td>147</td> <td>166</td>	4382	outage of 18713 5LAFAYET to 19154 5HARTSVI	1	161	147	166
4402 outage of 18717 5N NASH to 18727 5SAUNDER 1 161 147 166 4412 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166 <	4390	outage of 18715 5SPRNGFD to 19225 5COOPERT	1	161	147	166
4412 outage of 18718 5S NASH to 18719 5W NASH 1 161 147 166 4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4397	outage of 18717 5N NASH to 18722 5WHITES	1	161	147	166
4415 outage of 18718 5S NASH to 18730 5DONELSO 1 161 147 166 4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4402	outage of 18717 5N NASH to 18727 5SAUNDER	1	161	147	166
4417 outage of 18719 5W NASH to 18722 5WHITES 1 161 147 166 4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4412	outage of 18718 5S NASH to 18719 5W NASH	1	161	147	166
4420 outage of 18719 5W NASH to 18740 5DAVSNRD 1 161 147 166 4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4415	outage of 18718 5S NASH to 18730 5DONELSO	1	161	147	166
4422 outage of 18719 5W NASH to 19398 5GALLOWY 1 161 147 166 4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4417	outage of 18719 5W NASH to 18722 5WHITES	1	161	147	166
4425 outage of 18718 5S NASH to 19053 5CRAIGHE 1 161 147 166 4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4420	outage of 18719 5W NASH to 18740 5DAVSNRD	1	161	147	166
4427 outage of 18728 5ELYSIAN to 19053 5CRAIGHE 1 161 147 166 4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4422	outage of 18719 5W NASH to 19398 5GALLOWY	1	161	147	166
4430 outage of 18719 5W NASH to 19543 5ASHLDTP 1 161 147 166 4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4425	outage of 18718 5S NASH to 19053 5CRAIGHE	1	161	147	166
4432 outage of 18720 5RADNOR to 18728 5ELYSIAN 1 161 147 166 4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4427	outage of 18728 5ELYSIAN to 19053 5CRAIGHE	1	161	147	166
4435 outage of 18720 5RADNOR to 18737 5NOLNVLE 1 161 147 166 4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4430	outage of 18719 5W NASH to 19543 5ASHLDTP	1	161	147	166
4437 outage of 18720 5RADNOR to 18747 5E.FRANK 1 161 147 166	4432	outage of 18720 5RADNOR to 18728 5ELYSIAN	1	161	147	166
	4435	outage of 18720 5RADNOR to 18737 5NOLNVLE	1	161	147	166
4440 outage of 18720 5RADNOR to 18763 5BRENTWO 1 161 147 166	4437	outage of 18720 5RADNOR to 18747 5E.FRANK	1	161	147	166
	4440	outage of 18720 5RADNOR to 18763 5BRENTWO	1	161	147	166

No.	Contingency	Ckt	Base kV	Area	Zone
4442	outage of 18720 5RADNOR to 19070 5GRASL T	1	161	147	166
4450	outage of 18724 5PIN HOO to 18738 5CANE RI	1	161	147	166
4452	outage of 18724 5PIN HOO to 18743 5SMYRNA	1	161	147	166
4455	outage of 18724 5PIN HOO to 19037 5MURF RD	1	161	147	166
4457	outage of 18724 5PIN HOO to 19083 5HURRICA	1	161	147	166
4460	outage of 18724 5PIN HOO to 19086 5CENT PK	1	161	147	166
4465	outage of 18727 5SAUNDER to 19131 5LKEVIE	1	161	147	166
4467	outage of 18730 5DONELSO to 18731 5HERMITA	1	161	147	166
4470	outage of 18737 5NOLNVLE to 18738 5CANE RI	1	161	147	166
4472	outage of 18747 5E.FRANK to 18763 5BRENTWO	1	161	147	166
4475	outage of 18747 5E.FRANK to 19040 5HENPECK	1	161	147	166
4485	outage of 18913 5HNDRV T to 19187 5OCANA T	1	161	147	166
4490	outage of 18980 5DUNBAR to 19472 5ELKTNTP	1	161	147	166
4492	outage of 19006 5GLASG T to 19007 5BRSTO T	1	161	147	166
4500	outage of 19162 5UNION C to 19163 5ST BETH	1	161	147	166
4502	outage of 19207 5BEARWAL to 19543 5ASHLDTP	1	161	147	166
4505	outage of 19221 5KRKWD T to 19225 5COOPERT	1	161	147	166
4942	outage of 26047 08BEDFRD to 26049 08HARDSB	1	138	208	281
5700	outage of 27061 11BONNIE to 29227 20BONNIE	1	138-69	211-220	211-220

Area	Area Name	Zone	Zone Name	Contingency Buses	Monitored Buses
130	AECI				
		130	AECI	0	22
		133	AECI-CNT	0	18
		134	AECI-KMO	0	2
		135	AECI-SMP	0	53
		136	AECI-M&A	0	25
		100	/LOT Ma/	0	120
141	CPLW			<u>-</u>	
		106	CPL-W	0	1
				0	1
146	soco				
		140	GA-ITS	0	56
		141	APC	0	20
				0	76
147	TVA				
		165	TVAWEST	1	284
		166	TVANS	110	547
		167	TVAEAST	1	376
				112	1207
148	DOE			··-	
	202	170	DOE	0	5
				0	5
151	EES				
		157	EES_EAST	0	25
		158	EES_CNTR	0	15
		159	EES_NOR	0	146
				0	186
170	ENSE				
		169	ENRON	0	7
				0	7
171	ENCA				
		169	ENRON	0	10
				0	10
172	ENNA				
		169	ENRON	0	10
				0	10
173	ENGL	169	ENRON	0	_
		169	ENRON	0	5
205	AED			0	5
205	AEP	250	AEP-AP	0	9
		252	AEP-IM	2	4
		444	MISO_IA	0	1
		777	MI30_IA	2	14
207	HE			<u> </u>	17
_0,	· · ·	207	HE	10	24
				10	24
208	CIN				_ ·

CP 5.03

Area	Area Name	Zone	Zone Name	Contingency Buses	Monitored Buses
		281	PSI	21	5
				21	5
210	SIGE				
2.0	0.02	210	SIGE	30	52
				30	52
211	LGEE				<u></u>
211	LOLL	211	LGEE	80	324
		444	MISO_IA	0	4
			_	80	328
214	BREC				
217	BILLO	214	BREC	17	24
				17	24
216	IPL				
210	IFL	216	IPL	2	1
		210		2	1
200	EKDO				<u>'</u>
220	EKPC	220	EKPC	1	20
		220	LIN O	-	20
				1	20
356	AMRN	306	EASTERN	0	4
		310	REG E-IL	2	90
		311	FRKNJEFF	0	90 17
		311	ST FRAN		30
				0	
		313	STCHMOED	0	25
		314	LKSDMP&L	0	32
		315	GREENHIL	0	2
		316	SEMO	0	12
		317	N METRO	0	36
		318	S METRO	0	45
		319	ILL-IOWA	0	12
		321		3	24
		322		0	28
		323		9	49
		329		0	14
				14	420
357	IP				
		357	IP	1	263
				1	263
361	SIPC				
		351	EEC	0	9
		352	SEIEC	1	11
		361	SIPC	0	7
		444	MISO_IA	0	1
				1	28
362	EEI				
		362		0	6
				0	6
515	SWPA				
5.0		515		0	41
				0	41
520	CESW			-	
020	020.7	520		0	1
				-	- -

Area	Area Name	Zone	Zone Name	Contingency Buses	Monitored Buses
				0	1
524	OKGE				
		524		0	3
				0	3
536	WERE				
		537		0	4
				0	4
541	KACP				
		541		0	1
				0	1
544	EMDE				
		544		0	1
				0	1
546	SPRM				
		546		0	2
				0	2
				291	2865

MISO REGION 11 and AEP GENERATORS WITH A SIGNED INTERCONNECTION AGREEMENT, AS OF JUNE 6, 2002, ADDED TO THE POWER FLOW MODEL

	Base	MVA	455	234	234	146	146	146	146	208	208	340	239	239	251	218	137	218	137	218	137
		٩r		2	2							0			0						
	Capab	MVAr	70	115	115	65	65	65	65	85	85	150	75	75	100	06	09	06	09	06	09
Generator	Maximun Capability	MW	400	152	152	134	134	134	134	170	170	300	150	150	200	180	120	180	120	180	120
	put	MVAr	02	45	45	20	20	က	4	63	63	112	72	72	83	30	30	30	30	30	30
	Output	MW	135	152	152	126	125	28	89	170	170	300	150	150	200	180	120	180	120	180	120
		IA(2) Status					L	Ľ										L	Ĭ		
	•	Study Status	In-Service	IC/FC	IC/FC		Ç	<u>)</u>			IC/FC			IC/FC				Ç	<u>)</u>		
	•	In-Service Date	6/1/2001	6/1/2002	6/1/2002		7000	9/1/2004			6/1/2003			6/1/2002				700077	10/1/2004		
	-	Net Plant Max. MW (1)	400	174	174		0	040			640			200				C	000		
		Location	Montpelier, IN	Trimble, KY	Trimble, KY	Wheatland, IN	Wheatland, IN	Wheatland, IN	Wheatland, IN	S.W. Vigo, IN	S.W. Vigo, IN	S.W. Vigo, IN	Vigo, IN	Vigo, IN	Vigo, IN	Bedford.IN	Bedford.IN	Bedford.IN	Bedford.IN	Bedford.IN	Bedford.IN
		Base kV	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345
	High Side Bus	Number	22740 05DESOREN	27013 11TRIMBL	27013 11TRIMBL	29700 21WEATL	29700 21WEATL	29710 22WEATL	29710 22WEATL	90033 08VIGO	90033 08VIGO	90033 08VIGO	25391 08SCRK M	25391 08SCRK M	25391 08SCRK M	26333 08BED MP	26333 08BED MP	26333 08BED MP	26333 08BED MP	26333 08BED MP	26333 08BED MP
		Control Area	AEP	LGEE	LGEE	N O	N O	N O	N O	N O	N O	N O	CIN	N O							
	-	Q	-	2	9	-	-	-	-	G1	Ğ2	S	G1	62	S	G1	S	Ğ2	S2	63	S3
	Generator	Bus Name	05DESORENAEP	11TRIM#5	11TRIM#6	21WHTLD3	21WHTLD4	22WHTLD1	22WHTLD2	08VIGO G09	08VIGO G09	08VIGO G09	08SCR#G1	08SCR#G2	08SCR#S1	08BED G1	08BED S1	08BED G2	08BED S2	08BED G3	08BED S3
		Bus Number	22741	27234	27242	29701	29702	29711	29712	90030	90031	90032	25652	25817	25890	26337	26338	26339	26340	26341	26342
	MISO	Queue Date	NONE	12/1/1998	12/1/1998	7/30/1999	7/30/1999	7/30/1999	7/30/1999	7/30/1999	7/30/1999	7/30/1999	8/13/1999	8/13/1999	8/13/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999
	Σ	Queue No.	AEP-21	G002	G003	8009	8009	8009	8009	6009	6009	6005	G010	G010	G010	G015 1	G015	G015	G015	G015	G015

MISO REGION 11 and AEP GENERATORS WITH A SIGNED INTERCONNECTION AGREEMENT, AS OF JUNE 6, 2002, ADDED TO THE POWER FLOW MODEL

	Base	MVA	234	234	234	228	228	228	06	06	30	30	30	22	77	77	234
	Sapability	MVAr	115	115	115	85	85	85	30	30	12	12	12	35	35	35	115
Generator	Maximun Capability	MW	152	152	152	175	175	175	71	7.1	27	25	25	02	20	02	152
	put	MVAr	24	46	46	30	30	30	30	30	7	7	0	-18	4	4	46
	Output	MW	152	152	152	1	-	~	71	7.1	22	22	59	02	02	02	152
		IA(2) Status					IAF		JI)		nc					
		Study Status	IC/FC	IC/FC	IC/FC		IC/FC		Ç	5		IC/FC			IC/FC		IC/FC
		In-Service Date	6/1/2004	6/1/2004	6/1/2005		4/1/2002		0000, 119	0/1/2003		5/1/2002			6/1/2003		6/1/2006
		Net Plant Max. MW (1)	174	174	174 174 142 189						210	174					
	sn	Location	Trimble, KY	Trimble, KY	Trimble, KY	Oldham, KY	Oldham, KY	Oldham, KY	Williamson. IL	Williamson. IL	Marion, IN	Marion, IN	Marion, IN	Noblesville, IN	Noblesville, IN	Noblesville, IN	Trimble, KY
		Base kV	345	345	345	345 (345 (345 (161	161	138	138	138	69	69	69	345
	High Side Bus	Number	27013 11TRIMBL	27013 11TRIMBL	27013 11TRIMBL	27338 11BUCKNR	27338 11BUCKNR	27338 11BUCKNR	33351 5MRN_PL	33351 5MRN_PL	27889 16STOUTS	27889 16STOUTS	27889 16STOUTS	25641 08NOBLSV	25641 08NOBLSV	25641 08NOBLSV	27013 11TRIMBL
		Control Area	LGEE	LGEE	LGEE	LGEE	LGEE	LGEE	SIPC	SIPC	IPL	IPL	IPL	CIN	N C	N O	LGEE
		Ω	7	∞	6	1	7	က	9	7	1G	2G	36	က	4	r2	10
	MISO Generator	Bus Name	11TRIM#7	11TRIM#8	11TRIM#9	11BUCKNR#1	11BUCKNR#2	11BUCKNR#3	1MRNG5	1MRNG5	16STOUGT	16STOUGT	16STOUGT	08NOBCT1	08NOBCT2	08NOBCT3	11TRIM#10
		Bus Number	27367	27368	27369	27371	27372	27373	33389	33389	27988	27988	27988	26328	26329	26330	27370
		Queue Date	12/1/1999	12/1/1999	12/1/1999	12/7/1999	12/7/1999	12/7/1999	12/14/1999	12/14/1999	1/5/2000	1/5/2000	1/5/2000	10/27/2000	10/27/2000	10/27/2000	12/21/2000
	Ĭ	Queue No.	G016	G017	G018	G019	G019	G019	G021	G022	G025	G025	G025	G064	G064	G064	6905

	IAP Interconnection & Operating Agreement Pending	IAE Interconnection & Operating Agreement Executed	IAF Interconnection & Operating Agreement Filed	CP Construction of Interconnection Facilities Pending	UC Interconnection Facilities <u>U</u> nder <u>C</u> onstruction	IS <u>I</u> n- <u>s</u> ervice	QPF Queue Position Forfeited	
	<u>W</u> ithdrawn or Cancelled	Holding (Subject to Move to Bottom of Queue)	Inter	<u>I</u> nter	Inter	Eacility Study Agreement Pending	Eacility Study Agreement Executed	Eacility Study Completed
Status abbreviations	*	I	<u>~</u>	ш	ō	FP	E	FC

Notes: (1) Net Plant Max or Net Change @ Existing Plant; (2) IA - Interconnection Agreement

Generation Dispatch When Including MISO and AEP IA Generators

ŀ	in Net Change in Generation		Case C271s05MF						915					160	000	36	65-	7	t			000	000						640			200		က		•
	Net Change in Generation for	Ö	MW		152	152	152	152	152	152	_	_	1	20	20	-18	-2	4	0	180	120	180	120	180	120			170	170	300	150	150	200	3	20	
2	Per	رن ا	AEP_21																																	
OCILICIA (UIS	Case ID 05 C271s05MF	No MISO gens MISO & AEP	ΜM		152	152	152	152	152	152	~	_	1	125	125	22	68	71	142	180	120	180	120	180	120			170	170	300	150	150	200	73	20	
L	C271s05	No MISO gens	MM		0	0	A/N	A/N	A/N	Α/Z	A/N	Α/Z	N/A	75	75	75	75	75	142	N/A	A/N	A/N	Α/Z	A/N	N/A			Υ/Z	Υ/Z	A/N	A/N	A/N	A/N	20	N/A	
ICII IIICIAAIII B INIISO AIIA AE		Gen Bus	Name		11TRIM#5	11TRIM#6	11TRIM#7	11TRIM#8	11TRIM#9	11TRIM#10	11BUCKNR#1	11BUCKNR#2	11BUCKNR#3	21WHTLD3	21WHTLD4	22WHTLD1	22WHTLD2	1MRNG5	1MRNG5	08BED G1	08BED S1	08BED G2	08BED S2	08BED G3	08BED S3			08VIGO G09	08VIGO G09	08VIGO G09	08SCR#G1	08SCR#G2	08SCR#S1	16STOUGT	08NOBCT1	
מון		Generator	Bus No		27201	27201	27199	27199	27199	27199	27339	27339	27339	29701	29702	29711	29712	33369	33389	99006	29006	89006	69006	90070	90071			90031	90031	90032	26332	26332	26333	27988	90051	
^		Side	Base kV		345	345	345	345	345	345	345	345	345	345	345	345	345	161	161	345	345	345	345	345	345		North	345	345	345	345	345	345	138	69	
		High Side	Bus No	South	27013	27013	27013	27013	27013	27013	27338	27338	27338	29700	29700	29710	29710	33351	33351	90062	90062	90062	90062	90062	90062	 - -	ors in the	90033	90033	90033	26331	26331	26331	27889	26482	
		MISO	Queue No.	MISO Generators in the South	G002	G003	G016	G017	G018	6905	G019	G019	G019	8005	G008	800S	G008	Not in Que	G21&G22	G015	G015	G015	G015	G015	G015	0	MISO and AEP Generators in the North	6009	6009	600S	G010	G010	G010	G025	G064	
		Area	Name	MISO Ger					LGEE					CANIAT		ENIMI		Jaio	ב ה			2	5				MISO and		S S			S		IPL		

Branch Circuit	Circuit		Rating Emergency		v Rating Emergency
Big Rivers Electric Corporation			0 ,		0 ,
*Wilson to Coleman 345 kV		598	598	956	956
LG&E Energy					
*Baker Lane to Brown N 138 kV		205	216	224	277
*Earlington N to River Queen Tap 161 kV		184	184	209	257
*Eastview to Stephensburg 69 kV		42	42	56	68
*Elizabethtown to Tharp 69 kV		72	79	90	111
*Green River Steel 138-69 kV Transformer		93	102	93	107
*Green River Steel to OMU 69 kV		72	86	146	181
*Green River to Ohio County 138 kV	1	143	158	179	220
*Green River to Ohio County 138 kV	2	143	158	179	220
*Green River to River Queen Tap 69 kV		55	55	89	110
*Leitchfield 138-69 kV Transformer		72	79	93	107
*Leitchfield to Shrewsbury 138 kV		82	82	179	220
*Newtonville to Cloverport 138 kV		143	143	162	199
*Ohio County to Shrewsbury 138 kV		165	165	179	220
*Smith to Hardin County 345 kV		275	308	1195	1315
*Adams to Tyrone 138 kV		97	97	179	220
Arnold to Delvinta 161 kV		113	113	167	201
Artemus to Farley 161 kV		142	142	209	257
Artemus to Pineville 161 kV		129	129	176	201
Delvinta to West Irvine Tap 161 kV		142	142	176	201
Ghent to Owen County Tap 138 kV		227	227	227	280
Green River Steel to Smith 138 kV		241	241	287	287
Lake Reba Tap to West Irvine Tap 161 kV		165	165	167	223
East Kentucky Power Cooperative					
*Stephensburg to Upton Junction 69 kV		19	19	45	54

^{*}Facilities with an asterisk were revised after reviewing the preliminary power flow studies Facilities without an asterisk were revised after reviewing the MISO power flow studies Overloaded facilities requiring upgrades in TVA, SIGE and EES systems are not shown in this table

ROTOR MODELS TYPE GENROU

S12	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.35	0.35	0.35	0.58	0.58	0.58	0.58	0.58
S10	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.09	60.0	60.0	0.07	0.07	0.07	0.07	0.07
₹	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.13	0.13	0.13	0.18	0.18
p"X	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.17	0.17	0.17	0.20	0.20	0.20	0.21	0.21
bχ	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.42	0.42	0.42	0.46	0.46	0.46	0.44	0.44
p,X	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.22	0.22	0.22	0.27	0.27	0.27	0.27	0.27
bX	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.18	2.18	2.18	1.99	1.99	1.99	1.93	1.93
рх	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.26	2.26	2.26	2.11	2.11	2.11	1.99	1.99
Ο	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I	3.00	4.84	4.84	3.00	3.00	3.00	4.84	4.84	4.84	5.45	5.42	5.42	3.00	3.00	4.84	2.48	2.48
ob,,L	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.09	0.09	0.07	0.07	0.07	0.03	0.03
Ob,L	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	06.0	06.0	06.0	0.58	0.58	0.58	99.0	99.0
op,_L	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02
op,L	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.9	5.9	0.6	0.6	0.6	5.9	5.9	5.9	4.7	4.7
□	1	2	9	6	G 2	SG1	7	∞	6	_	7	က	9	7	10	-	_
NAME	22741 08DESOREN	27234 11TRIM#5	27242 11TRIM#6	90030 08VIGO G09	90031 08VIGO G09	90032 08VIGO G09	27367 11TRIM#7	27368 11TRIM#8	27369 11TRIM#9	27371 11BUCKNR#1	27372 11BUCKNR#2	27373 11BUCKNR#3	33389 1MRNG5	33389 1MRNG5	27370 11TRIM#10	27601 THRBRED#1	27602 THRBRED#2
Bus Number	22741	27234	27242	90030	90031	90032	27367	27368	27369	27371	27372	27373 1	33389	33389	27370	7 27601	7,092
Queue No.	AEP_21	G002	G003	6005	6009	6009	G016	G017	G018	G019	G019	G019	G021	G022	6905	A/N	A/N

EXHIBIT A13

EXCITER MODELS TYPE EXST1

	Τŧ	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	000
	Κţ	00.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Kc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	c
	Vrmin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	c
	Vrmax	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.1	6.1	6.1	1.0	1.0	7
	Та	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.10	0.10	0.10	0.01	0.01	0.01
	Ka	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	250	250	250	100	100	100
	Tb	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	10	10	10
	Tc	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
	Vimin	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	666-	000
	Vimax	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	666	000
	Tr	00.0	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.00	00.0	00.00	00.0	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	0.00	000
		1	2	9	_	-	_	_	G1	G2	S	G G	G2	S	G G	S	G2	S2	63	83	7	∞	6	_	7	က	9	7	10
	NAME	05DESOREN	11TRIM#5	11TRIM#6	21WHTLD3	21WHTLD4	22WHTLD1	22WHTLD2	08VIGO G09	08VIGO G09	08VIGO G09	08SCR#G1	08SCR#G2	08SCR#S1	08BED G1	08BED S1	08BED G2	08BED S2	08BED G3	08BED S3	11TRIM#7	11TRIM#8	11TRIM#9	11BUCKNR#1	11BUCKNR#2	11BUCKNR#3	1MRNG5	1MRNG5	11TRIM#10
	Bus Number	22741	27234	27242	29701	29702	29711	29712	90030	90031	90032	25652	25817	25890	26337	26338	26339	26340	26341	26342	27367	27368	27369	27371	27372	27373	33389	33389	27370
MISO	Queue No.	AEP_21	G002	G003	G008	G008	G008	G008	6009	600S	600S	G010	G010	G010	G015	G015	G015	G015	G015	G015	G016	G017	G018	G019	G019	G019	G021	G022	6905

GOVERNOR MODELS TYPE GAST

OSIN C		L	9	٥	ř	Ġ	Ġ	ŀ	3	1,1,	1,71-	2
Arene No.	DUS INUITIDE	NAINE TOOLO	2 √	צ	- 3	7 7	2 (₹ ₹	2 0	VIIIAX		Oluid
AEP_21	22741	05DESOREN	-	0.02	4.0	0.1	က	_	2	1.0	0.0	0
G002	27234	11TRIM#5	2	0.05	4.0	0.1	က	_	7	1.0	0.0	0
C003	27242	11TRIM#6	9	0.05	0.4	0.1	3	_	2	1.0	0.0	0
G008	29701	21WHTLD3	-	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G008	29702	21WHTLD4	-	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G008	29711	22WHTLD1	-	0.05	0.4	0.1	က	_	7	1.0	0.0	0
G008	29712	22WHTLD2	-	0.05	0.4	0.1	က	-	2	1.0	0.0	0
600S	90030	08VIGO G09	G1	0.05	0.4	0.1	က	-	2	1.0	0.0	0
6005	90031	08VIGO G09	G1	0.05	0.4	0.1	3	-	2	1.0	0.0	0
6005	90032	08VIGO G09	G1	0.05	0.4	0.1	3	-	2	1.0	0.0	0
G010	25652	08SCR#G1	<u>6</u>	0.05	0.4	0.1	က	_	7	1.0	0.0	0
G010	25817	08SCR#G2	G 2	0.05	0.4	0.1	3	_	2	1.0	0.0	0
G010	25890	08SCR#S1	S	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G015	26337	08BED G1	G1	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G015	26338	08BED S1	S	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G015	26339	08BED G2	G2	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G015	26340	08BED S2	S2	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G015	26341	08BED G3	63	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G015	26342	08BED S3	S3	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G016	27367	11TRIM#7	7	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G017	27368	11TRIM#8	ω	0.05	4.0	0.1	က	-	2	1.0	0.0	0
G018	27369	11TRIM#9	6	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G019	27371	11BUCKNR#1	_	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G019	27372	11BUCKNR#2	7	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G019	27373	11BUCKNR#3	က	0.05	0.4	0.1	က	-	2	1.0	0.0	0
G021	33389	1MRNG5	9	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G022	33389	1MRNG5	7	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G064	26328	08NOBCT1	က	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G064	26329	08NOBCT2	4	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G064	26330	08NOBCT3	2	0.05	0.4	0.1	က	_	2	1.0	0.0	0
G009	27370	11TRIM#10	10	0.05	0.4	0.1	3	-	2	1.0	0.0	0

GOVERNOR MODEL FOR THOROUGHBRED TYPE TGOV1

1D R T1 Vmax Vmin 1 0.05 0.49 1.0 0.0	R T1 Vmax \		T2 T3 Dt	2.1 7 0
A 0.0	ME ID R			
	ME ID		T1	
			ID R	1
Bus Number		MISO	Queue No.	A/N

Figure A16A
2003 Summer - Base Case
Fault at Wilson 345 kV - Cleared in 6 cycles

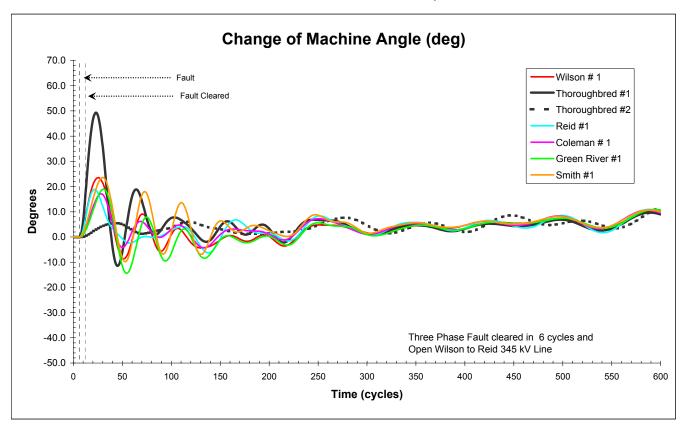
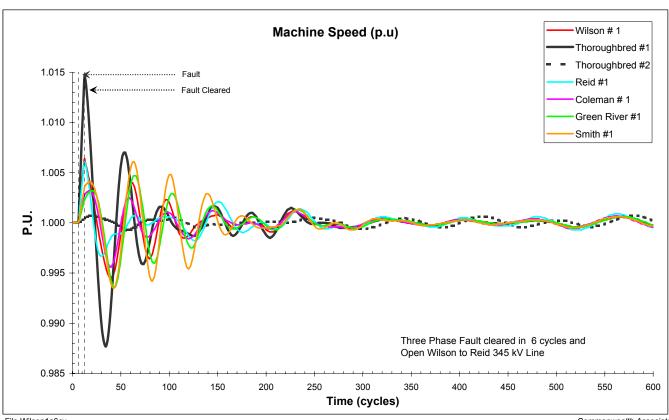
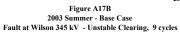


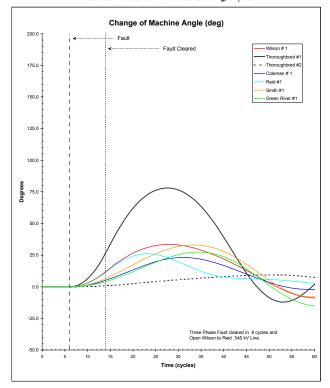
Figure A16B 2003 Summer - Base Case Fault at Wilson 345 kV - Cleared in 6 cycles



File Wilson1a6cy Commonwealth Associates

Figure A17A 2003 Summer - Base Case Fault at Wilson 345 kV - Critical Clearing, 8 cycles





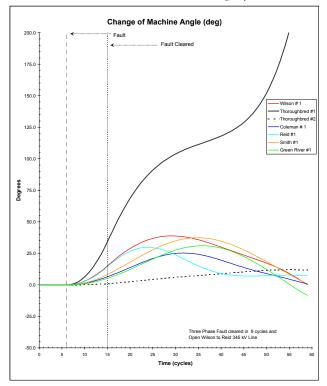
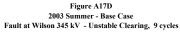
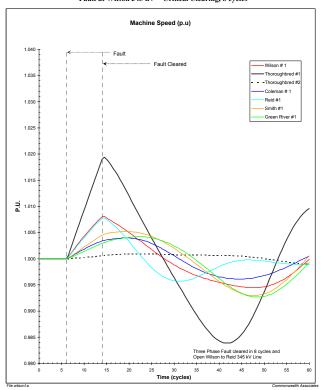
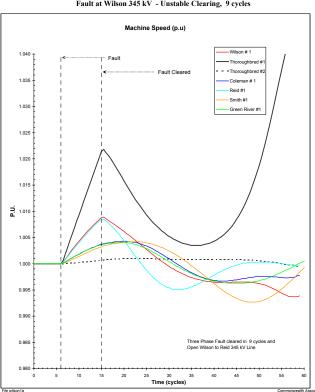


Figure A17C 2003 Summer - Base Case Fault at Wilson 345 kV - Critical Clearing, 8 cycles



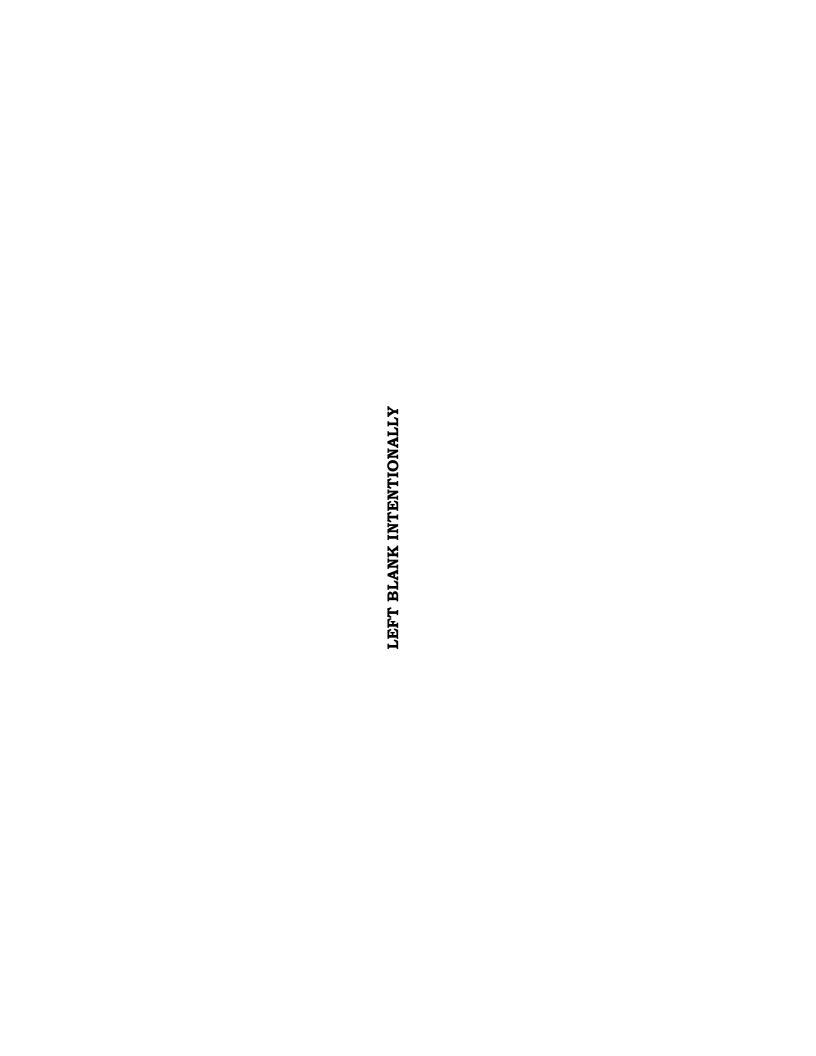




Thoroughbred Energy Campus Impacted Facilities Worst of All Preliminary Case Studies

						>	worst of All Preliminary Case Studies	ב ב ב	y case su	ales	<u></u>		INTEDCO	PINIECTION	NTEBCONNECTION (Co. drawing B4)	AG Saine	
											-1		IN LENGT	III III	A (See ula	(+G 6)	
		1			١.	(Max Of	Max Of	Max Of	Max Of	Max Of	Max Of	Max Of
		Bran	ches Excee	Branches Exceeding 100% of Emergency Rating	Eme	rgency Ra	ting				Base	Series	Series	Series	Series	Series	Series
	Facility								뜵		Series	100	200	140	240	170	270
1		From Name	<u>و</u>	Name	쓚	Base kV	Area	Zone	Norm	Emer	%Emer	%Emer	%Emer	%Emer	%Emer	%Emer	%Emer
Group 1	New Overloads	erioads	1 27552	17	~	161		210.211		285		15.1	458				
	102		26857			138-161		210		176	76	153	153	102	103		
	103	27551 14REID 5	27559	4	τ-	161		214		265	97	141	144	105	109	06	06
	104	27028 11GR RV	27553	27553 14WILSO5	-	161	211-214	211-214	530	558	;	142	141		1	1	3
	105		27095	11GR RVR	7	161-138	211	211	100	120		131	139	117	125	ı	1
	106		27095	11GR RVR	က	161-138	211	211	100	120	!	131	139	117	125	1	1
	107	27028 11GR RV		27095 11GR RVR	_	161-138	211	211	100	120	!	131	138	116	124	I	1
	108			14NATAL5	_	161	214	214	265	265	1	133	129			I	
	110	27558 14SKILM5		14NATAL5	_	161	214	214	265	265	!	128	125	1	1	1	1
	7	27094 11GR STL		11GR RVR	_	138	211	211	143	179	9	125	128	123	128	1	1
	112	27558 14SKILM5		27616 14N.HAR5	_	161	214	214	265	265	1	118	115	ı	1	ı	1
	113	27094 11GR STL	27215	27215 11GR STL	_	138-69	211	211	93	107	1	411	117	105	109	1	1
	114	27551 14REID 5	27619	14HOPC05	_	161	214	214	265	265	1	116	112	1	1	1	1
	115	18711 5GALLATI		19154 5HARTSVI	_	161	147	166	206	206	94	104	113	66	106	66	106
_	116	18450 5WILSNTN	_	18914 5GLADV T	_	161	147	166	151	151	102	104	11	105	112	104	111
	117	18711 5GALLATI		5LASCASS	_	161	147	166	206	206	94	110	109	113	112	112	111
	118	18026 5BARKLEY		14HOPC05	-	161	147-214	166-214	265	265		102	86			1	
	119	27061 11BONNIE		29227 20BONNIE	-	138-69	211-220	211-220	4	26	ı	102	101	92	92	1	1
	201	18743 5SMYRNA		5BLCKMNT	_	161	147	166	235	235	26	66	109	103	=======================================	100	110
	202	18708 5LEBANON	•	5GLADV T	-	161	147	166	151	151	96	86	105	66	106	86	105
	203	18744 5MURFKEE		5BLCKMN I		161		166	235	235	92	99	105	66	106	96	105
	204 205	18684 5INTERCH		19083 SHURKICA 18428 RMONTGO		161 707	147	99. 99. 99.	320	320	/6	S	40.	וסר	105	86	40.5
	206	27094 11GR STL		27142 11SMITH	· -	138		211	241	241	ı	100	101	92	97	108	108
	207	18705 5CENTER		18756 5SMTH TN	_	161		166	151	151	87	92	101	26	103	96	102
	208	99798 5BATEVL		5CUSHMN	-	161		159	148	148	86	86	101	66	101	86	101
	141	18012 5PARADIS		18880 5RUSS.SS	-	161		166	350	350	06	92	93	114	110	105	102
	142	18012 5PARADIS		5ABERD T	_	161		166	350	350	6	91	93	105	106	86	86
	_	18692 5E BOWL	18926	5ABERD T	-	161		166	350	350	82	88	91	102	103	92	96
Group 2		Pre-existing Overload in Base Cases with	se Cases w	rith Increased	Ove	rloading ir	S	ses									
	131	26886 10NEWTV	_	10NEWTVL	7	2 69-138	210	210	09	63	205	217	220	211	208	509	206
C	132	26886 10NEWTV	 	10NEWTVL	τ.	69-138	210	210	29	2 ;	184	195	198	190	188	188	185
7	133	26851 10CULLEY		10GRNDV		2 28	210	210	156	179	112	117	116	108	106	97	96,
	135	18691 5BOWL GR		18880 5KUSS.SS		161 161	147	99,	180	180	103	90.	110	176	119	900	113
	2	0			1	2		2	i		5	2	5	2	2	2	5

Note: --- = Less than the Minimum Reporting Level of 85%

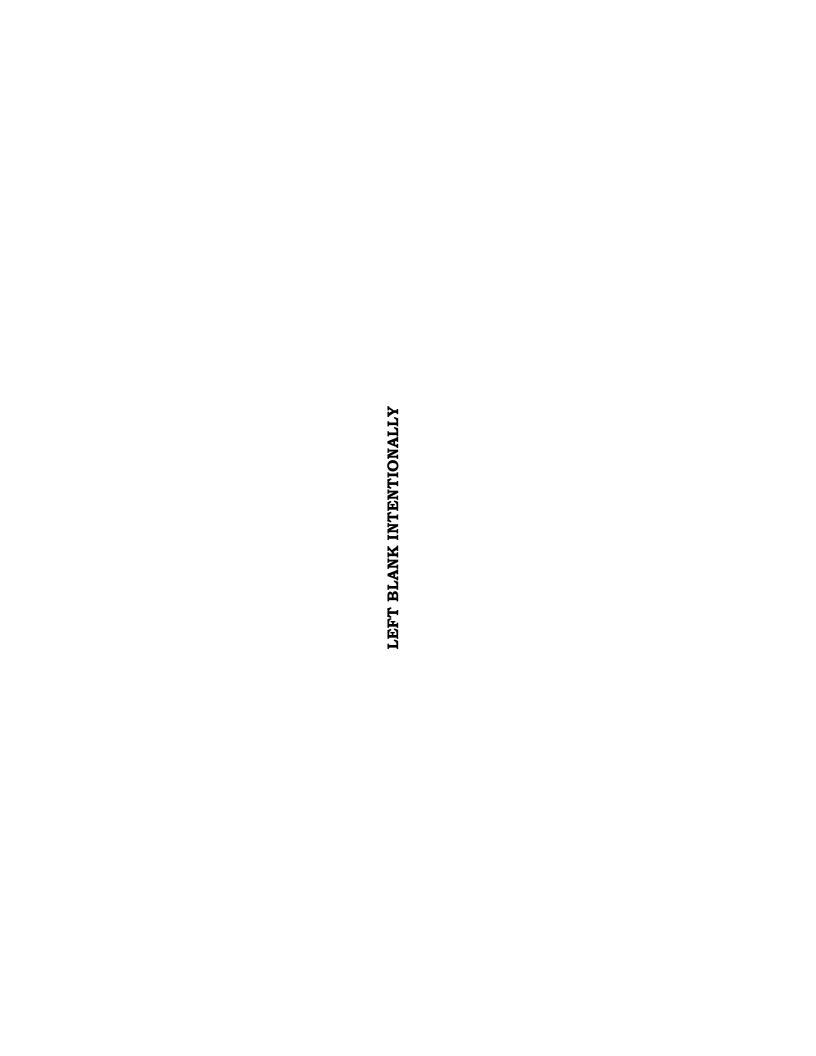


Thoroughbred Energy Campus
Comparison of Base Case to Worst of Case Studies
Thoroughbred Interconnection I - Thoroughbred/750 MW and Thoroughbred/1500 MW
All Base Case Generators in Service

		Branches E	xceeding	100%	of Emerge	Branches Exceeding 100% of Emergency Rating	_				-					O	C101s05r1				0	C201s05r1		
						í			1	_	Base Case 01		- 2005 Summer			Thoroug	Thoroughbred/750 MW	MM			Thorouc	Thoroughbred/1500 MW	MW 0	
	ŕ			č	77		,	Ratings	ngs	Sont		iz	Conti	_ -	Son	Normal	#1	Conti	incy ,	Son	Normal Sustant	First	First Contingency	ncy
New Overloads	0		Name	3	Dase KV	Area	20ne	NOLIE	шеш		Not Overl	% INOITI %	% laure	D Y		System%	Overload 2	Emer % /	n -	2	System?	Overload 3	Emer % /	9
7	2755	2 14C	27552 14COLE 5	-	161	210-214	210-214	265	265	089	35		i	0 / 0	3120	87	154	154	0 / 2	3120	92	158	158	7 / 4
	268	57 10N	26857 10NEWTVL	~	138-161	210	210	168	176	1070	22	26	92	0 / 0	3120	93	161	153	9 / 2	3120	92	160	153	6 / 3
27551 14REID 5 275	275	27559 14DAVIS5	AVIS5	~	161	214	214	265	265	3110	20	26	26	0 / 0	3110	28	141	141	2 / 0	3110	09	144	4	2 / 0
27028 11GR RV 27	27	27553 14WILSO5	VILS05	~	161	211-214	211-214	530	558	497	54	ı	ı	0 / 0	1732	108	144	137	***	1732	106	143	136	*
	27	27564 14NATAL5	'ATAL5	~	161	214	214	265	265	1685	36	I	I	0 / 0	3130	75	133	133	4 / 0	3130	73	129	129	4 / 0
	2	27564 14NATAL5	'ATAL5	-	161	214	214	265	265	1685	33	ı	ı	0 / 0	3130	71	128	128	3 / 1	3130	69	125	125	3 / 1
27094 11GR STL 2	7	27095 11GR RVR	RVR	-	138	211	211	143	179	3600	4	114	91	0 / 0	3600	88	157	125	3 / 0	3600	06	160	128	3 / 0
•••	7	27616 14N.HAR5	.HAR5	~	161	214	214	265	265	1685	56	ı	ı	0 / 0	3130	63	118	118	3 / 0	3130	61	115	115	3 / 0
	7	27215 11GR STL	iR STL	-	138-69	211	211	93	107	3510	35	ı	1	0 / 0	3510	36	132	114	1 / 0	3510	32	135	117	1 / 0
•	(A	27619 14HOPCO5	10PC05	-	161	214	214	265	265	1685	22	ı	1	0 / 0	1685	63	115	115	3 / 0	1685	29	112	112	3 / 0
	N	27095 11GR RVR	RVR	7	161-138	211	211	100	120	1210	47	ı	i	0 / 0	1303	94	135	113	2 / 0	1303	92	137	114	2 / 0
.,	7	27095 11GR RVR	RVR	က	161-138	211	211	100	120	1297	47	ı	i	0 / 0	1302	94	135	113	2 / 0	1302	92	137	114	2 / 0
.,	.,	27095 11GR RVR	RVR	~	161-138	211	211	100	120	3110	47	ı	i	0 / 0	1302	94	135	112	2 / 0	1302	92	136	113	5 / 0
18450 5WILSNTN 1	_	18914 5GLADV T	ADV T	-	161	147	166	151	151	4370	21	ı	i	0 / 0	4370	21	103	103	0 / 1	4370	59	11	11	1 / 0
18711 5GALLATI .	`	18890 5LASCASS	SCASS	-	161	147	166	206	206	115	81	94	8	0 / 0	4260	82	110	110	1 / 0	4260	84	109	109	1 / 0
18743 5SMYRNA		19527 5BLCKMN1	CKMNT	~	161	147	166	235	235	4367	72	ı	ı	0 / 0	#	=		#	#	4367	92	109	109	1 / 0
18711 5GALLATI		19154 5HARTSVI	\RTSVI	-	161	147	166	206	206	342	9/	68	88	0 / 0	4260	20	100	100	0 / 1	4357	26	107	107	2 / 0
18708 5LEBANON		18914 5GLADV T	ADV T	-	161	147	166	151	151	4370	19	ı	I	0 / 0	#			#		4370	52	4	104	0 / 1
18744 5MURFREE	`	19527 5BLCKMN ⁻	CKMNT	-	161	147	166	235	235	4367	51	ı	1	0 / 0	#	#	#	#	#	4367	61	4	104	0 / 1
18684 5INTERCH		19083 5HURRICA	JRRICA	~	161	147	166	320	320	4452	22	ı	ı	0 / 0	#	=				4452	62	4	104	0 / 1
18427 8PARADIS		18428 8MONTGO	ODINC	-	200	147	166	1732	1732	682	26	ı	ı	0 / 0	ii	#	#	#	#	92	102	103	103	*
18026 5BARKLEY		27619 14HOPCO5	10PC05	-	161	147-214	166-214	265	265	1685	6	ı	ı	0 / 0	1685	49	102	102	0 / 2	#	#	#	#	
27094 11GR STL		27142 11SMITH	MITH	-	138	211	211	241	241	3600	26	I	ı	0 / 0	 - -	#	#	#		3600	23	101	101	0 / 1
27061 11BONNIE		29227 20BONNIE	ONNIE	-	138-69	211-220	211-220	4	29	1732	87	ı	I	0 / 0	1362	105	135	101	**		#	#	#	
18705 5CENTER		18756 5SMTH TN	1TH TN	-	161	147	166	151	151	75	82	87	87	0 / 0	#		#	#		4367	06	101	101	0 / 1
99798 5BATEVL		99808 5CUSHMN	JSHMN	—	161	151	159	148	148		92	86	86	0 / 0	=======================================	===	#	=======================================	#	30	86	101	101	0 / 2
Pre-existing Overload in Case1 with Increased Overloading in Case2	ad	in Case1 v	vith Incres	ased O	verloading	ı in Case2				-	Overload 1			< Less Ti	han <		Overload 2	ad 2				Overload 3	ad 3	
26886 10NEWTVL		26855 10NEWTVL	EWTVL	7	69-138	210	210	09	63	1162	125	212	202	**	1162	133	226	215	***	1162	136	231	220	*
26886 10NEWTVL		26855 10NEWTVL	EWTVL	-	69-138	210	210	29	20	1165	112	193	184	*	1165	119	203	<u>\$</u>	***	1165	122	207	198	*
18691 5BOWL GR		18880 5RUSS.SS	JSS.SS	-	161	147	166	180	180	160	53	101	101	0 / 1	160	22	104	104	0 /1	160	26	108	108	1 / 0
18724 5PIN HOO		18738 5CANE RI	NE RI	-	161	147	166	271	271	80	62	101	101	0 / 1		===	===		ij	80	29	107	107	1 / 0
26851 10CULLEY ;	•	26879 10GRNDV	RNDV	-	138	210	210	156	179	3110	94	129	112	1 / 2	3110	77	135	117	1 / 1	3110	74	4	116	1 / 1
										_														

^{--- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload
Court of Contingencies Causing Overloads (A/B Stats)
A = Serious Overload > 105%
B = Overloaded Facility between 100% and 105% of Rated Capability

^{–.} ഗ. ю. 4.

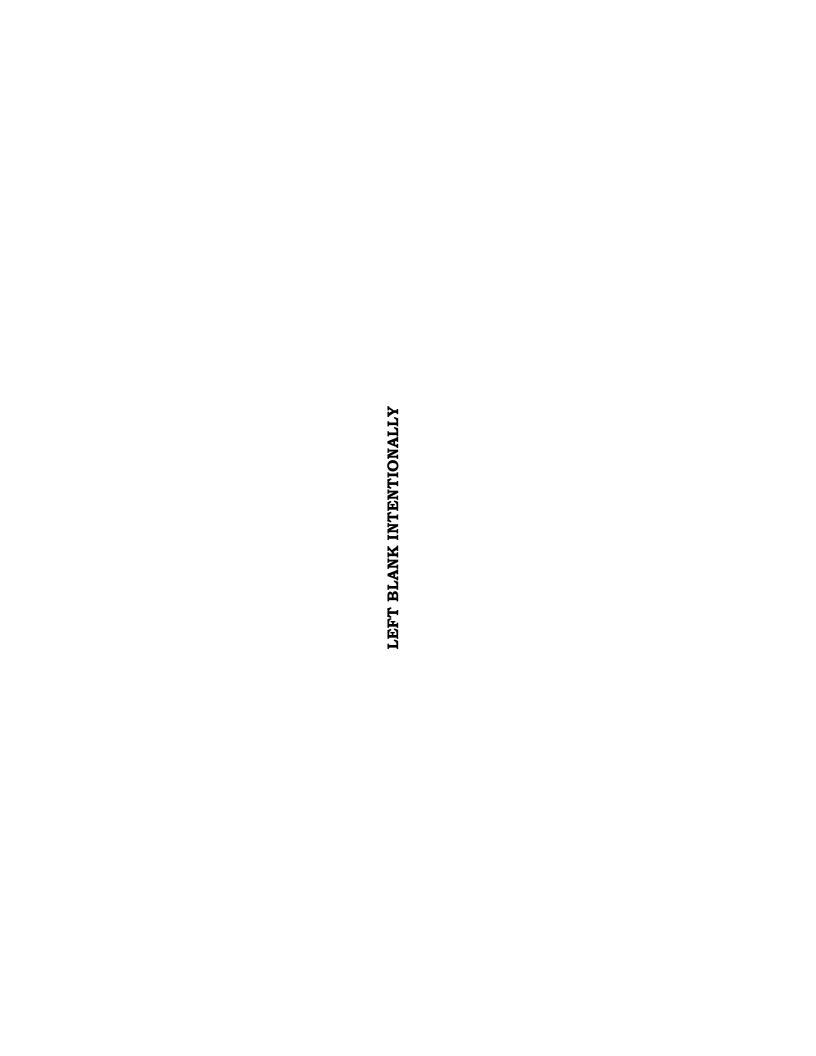


Thoroughbred Energy Campus
Comparison of Base Case to Worst of Case Studies
Thoroughbred Interconnection I - Thoroughbred/750 MW and Thoroughbred/1500 MW
Loss of Brown N Unit # 3 (441 MW)

Control Name To Name Lange Control Name To Name Lange Control Name To Name Lange Control Name To Name Lange Control Name To Name Lange Control Name To Name Lange Control Name To Name Lange To Name To		-	Branches Exceeding 100% of Emergency Rating	00% of E	mergenc	y Rating					B Brown	BC05s11	Simmor		H	C.	C111s05r1	d Brown	-	Thhr	C21	C211s05r1	f Brown h	-
National N								Ratin	S	-1	Normal	First (Sontinge	NC A	Cont	Normal Normal	N & LUSS	Continger	200	Cont	Normal Normal	First	Contingen	ج ج
New Overloads					Base kV	Area	Zone	Norm	Emer		System%	Norm %	mer %	_	۵	System%	Norm %	Emer %	_		_	lorm % E	mer %	A / B
2885 10NEWTVL 2885 14NDLES 1 16 1 10 2 10 2 10 16 16 16 16 16 16 16 16 16 16 16 16 16		Group 1 New Overloads									Not Over	loaded					Overlo	ad 2	Wo	rst of		Overloa	rd 3	
210 168 176 170 58 99 94 0 0 168 156 149 177 168 156 156 149 177 1685 156 157 168 156 157 168 156 157 168 156 157 168 157 168 157 168 157 168 157 168		26857 10NEWTVL	27552 14COLE 5	-	161	210-214	210-214	265	265	ı	36	!	ı	0 / 0	1685	98	154	154	2 / 0	1685	06	157	157	5 / 3
Table Tabl		26855 10NEWTVL	26857 10NEWTVL	-	138-161	210	210	168	176	1070	28	66	94	0 / 0	1685	92	156	149	7 / 2	1685	92	155	148	8 / 2
27528 415RILMS 27528 416MVTALS 1 61 214 214 266 266		27028 11GR RV	27553 14WILSO5	-	161	211-214	211-214	530	228	ı	26	1	i	0 / 0	1732	109	145	138	***	1732	108	144	137	***
27558 HARILIAS 27564 HANNIAS 1 61 214 214 2265 265 </td <td></td> <td>27552 14COLE 5</td> <td>27564 14NATAL5</td> <td>-</td> <td>161</td> <td>214</td> <td>214</td> <td>265</td> <td>265</td> <td>ı</td> <td>39</td> <td>1</td> <td>i</td> <td>0 / 0</td> <td>1685</td> <td>28</td> <td>131</td> <td>131</td> <td>2 / 0</td> <td>1685</td> <td>9/</td> <td>128</td> <td>128</td> <td>2 / 0</td>		27552 14COLE 5	27564 14NATAL5	-	161	214	214	265	265	ı	39	1	i	0 / 0	1685	28	131	131	2 / 0	1685	9/	128	128	2 / 0
277281 HGRIDS 277861 HGRIDANUSS 1 61 214 214 214 214 214 214 214 214 172 55 172 51 90 0		27558 14SKILM5	27564 14NATAL5	~	161	214	214	265	265	I	35	!	i	0 / 0	1685	74	127	127	2 / 0	1685	72	123	123	2 / 0
27028 11GR RVA 27028 1		27551 14REID 5	27559 14DAVIS5	~	161	214	214	265	265	1752	51	06	06	0 / 0	1732	26	124	124	1 / 0	1732	19	127	127	1 / 0
27028 HIGR KY 27028 HIGR KY 27028 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 27029 HIGR KY 161-138 211 211 100 120 -53 0 0 1732 99 145 119 4 /0 1302 100 144 27029 HIGR KYR 1 161-138 211 211 214 214 265 265 265 265 265 266 2		27028 11GR RV	27095 11GR RVR	7	161-138	211	211	100	120	1	23	1	i	0 / 0	1303	66	143	119	0 / 4	1303	100	144	120	***
27028 1IGR RVA 27035 1IGR RVA 1 161-138 2 11 211 1 00 1 20 1 302 99 1 42 1 19 4 / 0 1 1302 99 1 42 1 19 4 / 0 1 143 1 17 1 / 0 1 1732 99 1 44 1 0 1 43 1 19 4 1 4 1 6 1 732 99 1 44 1 1		27028 11GR RV	27095 11GR RVR	က	161-138	211	211	100	120	ı	23	1	i	0 / 0	1302	66	143	119	0 / 4	1302	100	144	120	*
27094 11GR STL 27096 11GR STL 27096 11GR STL 27096 11GR STL 49 49 0 0 1 145 176 178 97 148 27564 14GR STL 27094 11GR STL 27094 11GR STL 27064 14GR STL 1		27028 11GR RV	27095 11GR RVR	~	161-138	211	211	100	120	ı	23	1	i	0 / 0	1302	66	142	119	0 / 4	1303	100	144	120	4 / 0
277588 14SKILMS 27768 14HNHARS 1 61 214 265 266 266 266 16 16 14 16 14 14 14 16 14 16 14 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 16 14 14 16 14 14 16 14 14 16 14 14		27094 11GR STL	27095 11GR RVR	~	138	211	211	143	179	ı	49	1	i	0 / 0	1732	94	145	116	1 / 0	1732	26	148	118	1 / 0
27551 14REID 5 2769 14HOPCOS 1 61 214 144 146 216 206 234 94		27558 14SKILM5	27616 14N.HAR5	~	161	214	214	265	265	ı	59	1	i	0 / 0	1685	99	117	117	1 / 0	1685	64	114	114	1 / 0
1871 5GALLATI 19154 5HARTSVI 1 </td <td></td> <td>27551 14REID 5</td> <td>27619 14HOPCO5</td> <td>-</td> <td>161</td> <td>214</td> <td>214</td> <td>265</td> <td>265</td> <td>ı</td> <td>19</td> <td>1</td> <td>i</td> <td>0 / 0</td> <td>1685</td> <td>61</td> <td>114</td> <td>114</td> <td>1 / 0</td> <td>1685</td> <td>22</td> <td>110</td> <td>110</td> <td>1 / 0</td>		27551 14REID 5	27619 14HOPCO5	-	161	214	214	265	265	ı	19	1	i	0 / 0	1685	61	114	114	1 / 0	1685	22	110	110	1 / 0
1845 SANILSMTN 1891 SGLADVT 1 1 1 1 1 1 1 1 1		18711 5GALLATI	19154 5HARTSVI	-	161	147	166	206	206	342	80	94	94	0 / 0	4260	75	104	104	0 / 2	4357	83	113	113	2 / 0
18743 SSMYRNA 19527 BBLCKMNT 1 147 166 235 236 - 0 0 == == == == == == 4367 65 109 18743 SSMYRNA 19527 BBLCKMNT 1 14 166 206 206 115 80 93 0 0 4260 82 109 17 0 4260 83 108		18450 5WILSNTN	18914 5GLADV T	-	161	147	166	151	151	1	22	!	i	0 / 0	4370	22	104	104	0 / 1	4370	29	11	11	1 / 0
1871 5GALLATI 18890 5LASCASS 1 6 206 206 16 16 206 206 16 4260 82 109 17 0 4260 83 108 1870 5GLBANON 1891 5GLADVT 1 61 147 166 151 151 0 0 == == == 437 56 105 1870 5GLBANON 1891 5GLADVT 1 61 147 166 150 0 0 == == == 4450 80 106		18743 5SMYRNA	19527 5BLCKMNT	-	161	147	166	235	235	1	22	1	i	0 / 0				=	#	4367	92	109	109	1 / 0
1870 SLEBANON 18914 GGLADYT 1 61 147 166 151 147 166 235 2		18711 5GALLATI	18890 5LASCASS	-	161	147	166	206	206	115	80	93	93	0 / 0	4260	82	109	109	1 / 0	4260	83	108	108	1 / 0
1874 5MURPREE 19527 5BLCKMNT		18708 5LEBANON	18914 5GLADV T	-	161	147	166	151	151	ı	19	!	i	0 / 0		#	#		#	4370	56	105	105	0 / 1
18684 SINTERCH 19083 SHURRICA 1 61 147 166 320	_	18744 5MURFREE	19527 5BLCKMNT	-	161	147	166	235	235	1	21	!	i	0 / 0	H	#	H		#	4367	62	105	105	0 / 1
14327 8PARADIS 18428 BMONTGO 1 50 147 166 1732		18684 5INTERCH	19083 5HURRICA	-	161	147	166	320	320	1	22	!	i	0 / 0	H	#	H		#	4452	62	104	104	0 / 1
27061 TIBONNIE 2927 20BONNIE 1 138-69 211-220 211-220 44 59		18427 8PARADIS	18428 8MONTGO	-	200		166	1732	1732	1	29	!	i	0 / 0	H	#	H		#	65	102	103	103	*
18026 SBARKLEY 27619 14HOPCO5 1 161 147-214 186-214 265 265 7 0 / 0 1685 46 101 101 0 / 1 === === === === === === === === ===		27061 11BONNIE	29227 20BONNIE	-	138-69		211-220	44	26	ı	82	!	i	0 / 0	1362	101	137	102	*	1362	86	136	101	0 / 1
18705 SCENTER 18756 SSMTH TN		18026 5BARKLEY	27619 14HOPCO5	-	161		166-214	265	265	1	7	!	i	0 / 0	1685	46	101	101	0 / 1	===	===			
Pre-existing Overload in Cased With Increased Overloading in Cased See 18 (16 to 18 t	_	18705 5CENTER	18756 5SMTH TN	1	161		166	151	151	75	82	87	87	0 / 0	===	===	===	===	===	4367	90	101	101	0 / 1
26855 10NEWITL 2 69-138 210 210 60 63 1162 124 213 203 *** 1162 134 228 217 *** 1162 134 228 28858 100 100 10 10 10 10 10 10 10 10 10 10 1	4		ad in Case1 with Increa	ased Ove	erloading	in Case2					Overlo	ad 1		< Less 1	han <		Overlo	ad 2	Wo	rstof		Overlo	rd 3	
26855 10NEWTVL 1 69-138 210 210 67 70 1165 111 191 183 *** 1165 120 204 195 *** 1165 120 205 120 205 18880 5RUSS.SS 1 161 147 166 180 180 61 101 101 101 0 / 1 === === === === === 80 66 107 1		26886 10NEWTVL	26855 10NEWTVL	2	69-138	210	210	09	63	1162	124	213	203	***	1162	134	228	217	***	1162	134	228	218	*
18880 5RUSS.SS 1 161 147 166 180 180 160 55 103 103 0 / 1 160 56 106 106 1 / 0 160 60 110 101 101 101 101 101 101 10	_	26886 10NEWTVL	26855 10NEWTVL	τ-	69-138	210	210	29	2	1165	111	191	183	***	1165	120	204	195	***	1165	120	202	196	***
18738 SCANE RI 1 161 147 166 271 271 80 61 101 101 0 / 1 === === === === 80 66 107 ·		18691 5BOWL GR	18880 5RUSS.SS	-	161	147	166	180	180	160	22	103	103	0 / 1	160	26	106	106	1 / 0	160	09	110	110	1 / 0
		18724 5PIN HOO	18738 5CANE RI	_	161	147	166	271	271	80	61	101	101	0 / 1	==	==	==	===	===	80	99	107	107	1 / 0

^{--- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload
Count of Contingencies Causing Overloads (A/B Stats)
A = Sen

-. ഗ. ღ. 4.



Thoroughbred Energy Campus

Comparison of Base Case to Worst of Case Studies Thoroughbred Interconnection I - Thoroughbred/750 MW and Thoroughbred/1500 MW Loss of Green River Unit # 4 (104 MW)

. ~ ~ ‡ * * *** - 0000 000 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | MW & Loss of C221s05r1 Normal 4367 1732 30 Worst of 1685 1732 1732 1302 1302 1302 1732 1685 1685 1685 4370 4260 4367 4377 4377 4357 4367 4367 4367 4367 0 0 0 / 1 0 / 1 0 / 1 ** * 102 MW & Loss of C121s05r1 Normal # 46 133 119 55 Cont □ 1685 1732 1303 1302 1302 1685 1685 1685 1732 1685 1685 1685 1685 4370 4260 === 1685 * * * 00 203 183 100 101 BC05s21 oss of Green River 21 191 100 101 Normal System% 124 1111 53 62 Cont 1162 1165 160 80 Ratings 63 70 180 271 Norm 60 67 180 271 211 214 214 214 214 214 214 216 66 166 166 166 166 166 166 166 211-214 211-214 166 210 210 166 166 147-214 Branches Exceeding 100% of Emergency Rating Area 147 147 147 147 211 151 161-138 161-138 345 Base kV 161 161 18914 5GLADV T 19527 5BLCKINNT 19083 5HURRICA 18428 8MONTGO 127619 14HOPCO5 118756 5SMTH TN 19209 5GUSHMM 1 In Case1 with Increased O 26855 10NEWTVL 2 충 27619 14HOPCOS 27616 14N.HAR5 18914 5GLADV T 18890 5LASCASS 19527 5BLCKMNT 27553 14WIL SOB 27095 11GR RVR 27095 11GR RVR 27095 11GR RVR 27563 14COLE 7 27564 14NATAL5 27564 14NATAL5 27569 14DAVIS5 26855 10NEWTVL 10NEWTVL 18880 5RUSS.SS 18738 5CANE RI Name **5HARTSVI** 19154 1871 5GALLATI 18743 5SMYRNA 18711 5GALLATI 18708 5LEBANON 18744 5MURFREE 18684 5INTERCH Pre-existing Overloa 26886 10NEWTVL 26886 10NEWTVL 18691 5BOWL GR 27551 14REID 5 27558 14SKILM5 18450 5WILSNTN 27028 11GR RV 27028 11GR RV 27028 11GR RV 27028 11GR RV 27561 14WILSOT 27552 14OLLE 5 27558 14SKILM5 27551 14REID 5 26857 10NEWTVL 26855 10NEWTVL 8PARADIS **5BARKLEY 18705 5CENTER** 27094 11GR STL 99798 5BATEVL 18026 18427

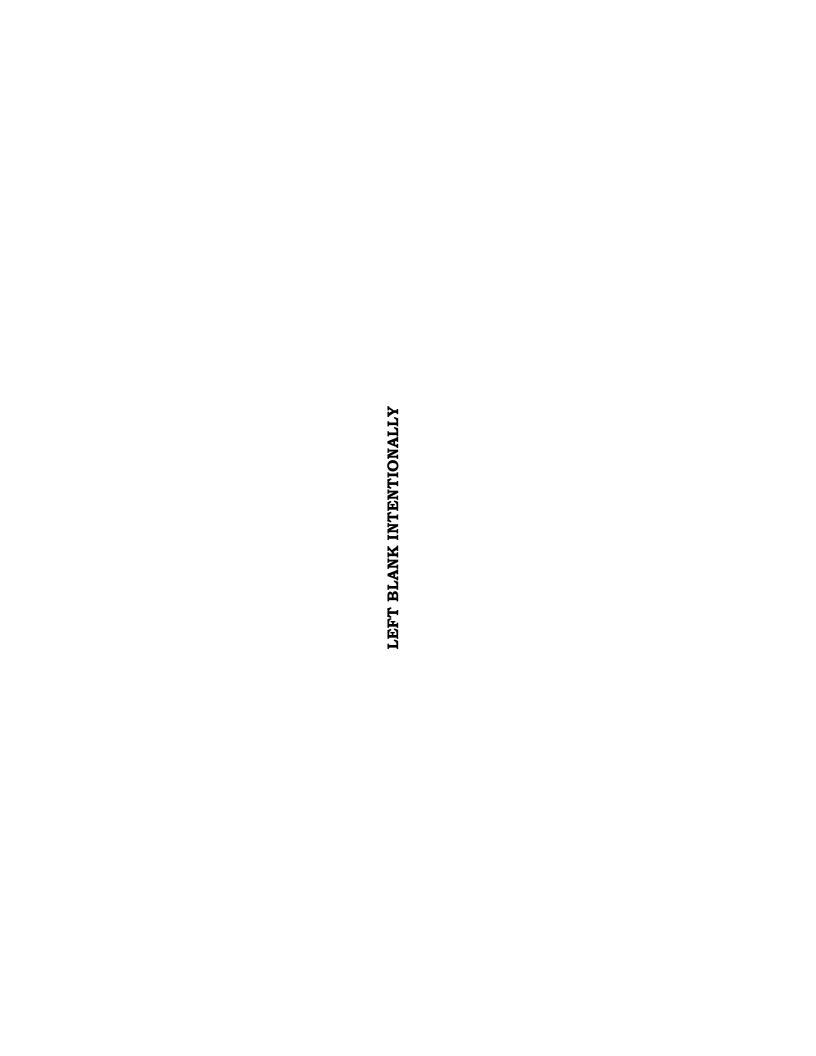
-0000000---

0

^{← 0, ∞ 4.}

^{--- =}Less than the Minimum Reporting Level of 85% ** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria

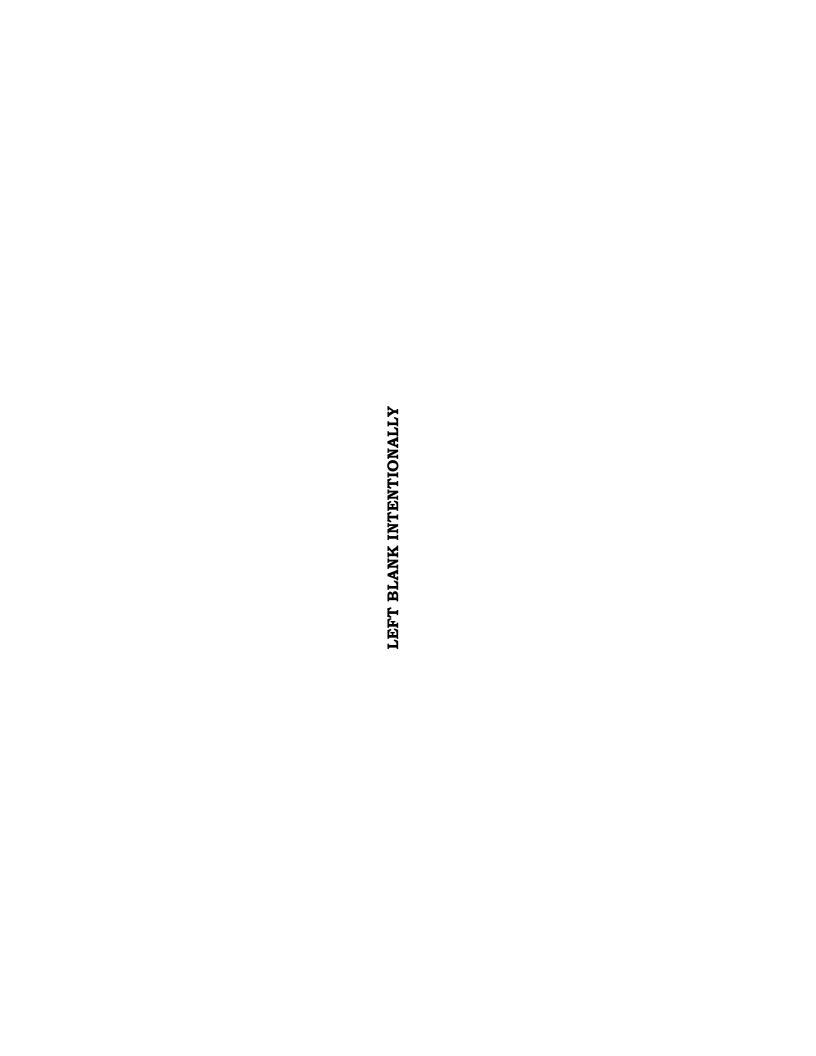
^{=== =} Facility did not overload
Count of Contingencies Causing Overloads (A/B Stats)
A = Serious Overload > 105%
B = Overloaded Facilty between 100% and 105% of Rated Capability



Thoroughbred Energy Campus
Comparison of Base Case to Worst of Case Studies
Thoroughbred Interconnection II - Thoroughbred Connected to Wilson, Green River and Paradise @ 161 kV
All Base Case Generators in Service

	G	Branchoe Exceeding 100% of Emergency Bating	00% of Em	700000	Dating.					B	BC05s01					C141s05					C241s05	05		
	5	inches Exceeding 10	5000	ei geney	yarıı g				Be	Base Case 01 - 2005 Summer	1 - 2005 8	Summer		Th	Thoroughbred/1-750 MW @ 161	1/1-750 M	W @ 16	1 kV	Thbre	hbred/1-750MW@161kV & 1-750MW@500k	W@161k\	/ & 1-750	WW@50	0kV
							Ratings	s	Cont	Normal	First C	First Contingency	cy	Cont	Normal	First	First Contingency	ency	Cont	nt Norma		First Contingency	gency	
	From Name	To Name	Ckt Base kV		Area	Zone	Norm	Emer	<u>Q</u>	System% Norm %		Emer % /	A / B	₽	System%	System% Norm % Emer	≣mer %	/ V	В		System% Norm %	Emer	/ V %	В
Group 1	New Overloads									Not Overloaded	aded					Overload 2	ad 2				ò	Overload 3		
	27094 11GR STL	27095 11GR RVR	1	138	211	211	143	179	3600	41	114	91 0	0 /	3600	73	154	123	1 /	98 0			128	1 /	0
	18012 5PARADIS	18880 5RUSS.SS	_	161	147	166	350	350	160	20	06	06	0 \	160	9	114	114	3	2 160	0 88	110	110	1	7
	18743 5SMYRNA	19527 5BLCKMNT	_	161	147	166	235	235	4367	24	26	97 0	0 /	4367	22	101	101	\ 0	1 436			11	1	0
	27094 11GR STL	27215 11GR STL	←	138-69	211	211	93	107	i	35	1		0 \	3510	32	121	105	\ 0	1 35,	_		109	1	0
	27551 14REID 5	27559 14DAVIS5	_	161	214	214		265	3110	20	26	97 0	0	3110	25	105	105	\ 0	1 31,	_		109	1	0
	18744 5MURFREE	19527 5BLCKMNT	_	161	147	166	235	235	4367	51	95	92 C	0 \	4367	24	26	26	\ 0	0 436			106	1	0
_	18708 5LEBANON	18914 5GLADV T	_	161	147	166	151	151	4370	19	96) 96	0	4370	34	66	66	\ 0	0 437	_		106	1	0
	18012 5PARADIS	18926 5ABERD T	_	161	147	166	350	350	160	62	98	3 98	0 \	160	78	105	105	٦	0 16			105	1	0
	18684 5INTERCH	19083 5HURRICA	_	161	147	166	320	320	4452	22	26	97 0	0	4452	28	86	86	\ 0	0 446			105	0	_
	18427 8PARADIS	18428 8MONTGO	_	200	147	166	1732	1732	ı	29	1		0 \	1	29	i	ŀ	\ 0	0	•		103	* * *	*
	18705 5CENTER	18756 5SMTH TN	_	161	147	166		151	4367	82	95	92 0	0 \	4367	87	26	26	\ 0	0 436			103	0	7
	18692 5E BOWL	18926 5ABERD T	_	161	147	166	350	350	i	62	1		0 \	160	11	102	102	\ 0	1			102	0	_
	99798 5BATEVL	99808 5CUSHMN	1	161	151	159	148	148	30	92	98	98 0	/ 0	30	26	66	66	/ 0	0 27			101	0 /	11
Group 2		Pre-existing Overload in Case1 with Increased Overloading in Case2	eased Ov	rerloadin	g in Cas	e2			_	Overload 1			< Less	Than <		Overload 2	ad 2				ò	Overload 3		
	18691 5BOWL GR	18880 5RUSS.SS	1	161	147	166	180	180	160	23	101	101 0	/ 1	160	29	115	115	1 /	0 160				1 /	0
	18450 5WILSNTN	18914 5GLADV T	_	161	147	166	151	151	4370	21	102	102 C	_ 1	4370	21	105	105	-	0 437				1	
c	26886 10NEWTVL	26855 10NEWTVL	2	69-138	210	210	09	63	1162	125	215	205	*	1162	130	222	211	*	116				* *	
1	26886 10NEWTVL	26855 10NEWTVL	-	69-138	210	210		20	1165	112	193	184	*	1165	116	199	190	*	116	35 114	195	187	* * *	*
	18711 5GALLATI	18890 5LASCASS	_	161	147	166	206	206	4260	81	108	108	0	4260	84	113	113	_	_				1	0
	18724 5PIN HOO	18738 5CANE RI	_	161	147	166	271	271	80	62	101	101	/ 1	8	61	66	66	0	0 80				1	0

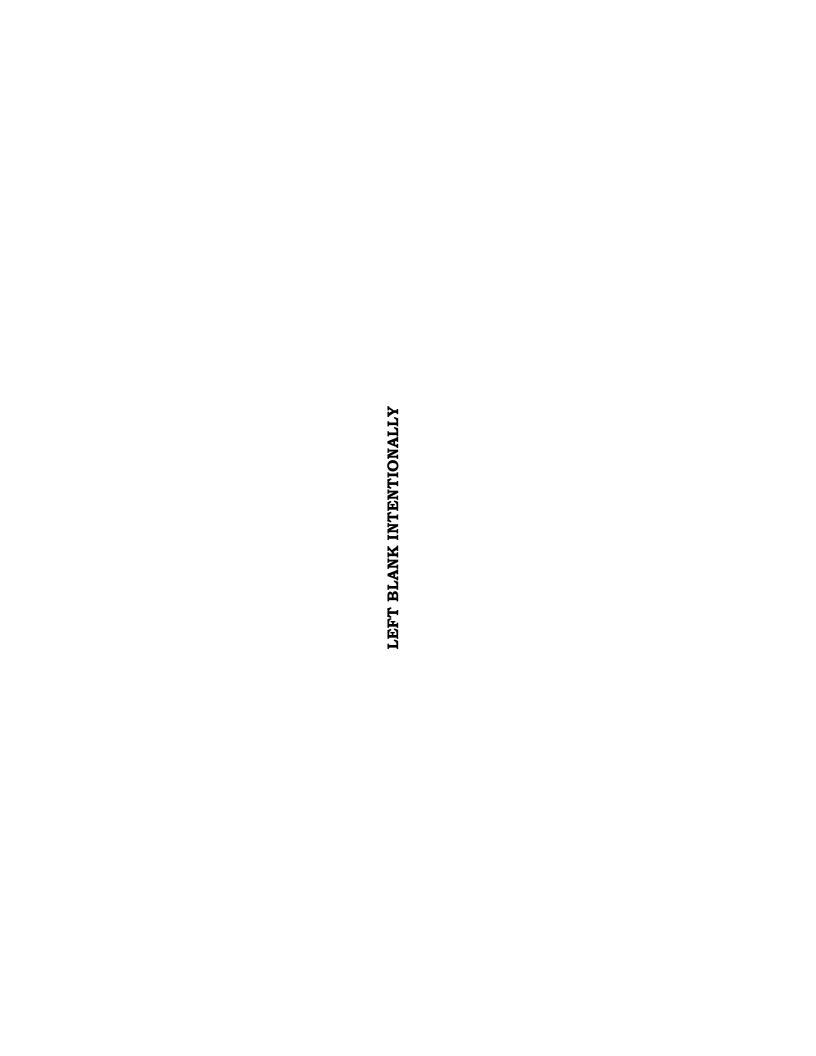
^{--- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload
Count of Contingencies Causing Overloads (A/B Stats)
A = Serious Overload > 105%
B = Overloaded Facility between 100% and 105% of Rated Capability -. 6. 6. 4.



Thoroughbred Energy Campus
Comparison of Base Case to Worst of Case Studies
Thoroughbred Interconnection II - Thoroughbred Connected to Wilson, Green River and Paradise @ 161 kV
Loss of Brown N Unit # 3 (441 MW)

		Branches Exceeding 100% of Emergency Rating	00%	Fmerge	Prv Ratir	2					BC05s11					C151s05					C251s05	90		
	Ĭ	divines Exceeding	000	, FIII 6	ney man	20				3ase Case	Base Case 01 - 2005 Summer	Summe	Į.	L	Thoroughbred/1-750 MW @ 161 kV	ed/1-750 N	W @ 16	31 kV	Thb,	hbred/1-750MW@161kV & 1-750MW@500k\	1W@161K\	/ & 1-750E	√1W@5	00kV
							Ra	Ratings	Cont	Normal	First (First Contingency	ncy	Cont	t Nomal	First	First Contingency	tency	ŭ	Cont Normal		First Contingency	gency	
	From Name	To Name	쓚	t Base kV	cV Area	a Zone	Norm	Emer	₽	System% Norm %		Emer %	/ Y	О	System%	System% Norm % Emer %	Emer %	/ V	В	ID System%	m% Norm %	% Emer %	V 9	В
Group	1 New Overloads									Not Overloaded	loaded					Overload 2	ad 2				Overl	erload 3		
	18012 5PARADIS	18880 5RUSS.SS	. 1	161	147	166	320	320	160	20	06	06	/ 0	0 160		112	112	1 /	. 2		•	109	1	7
	18743 5SMYRNA	19527 5BLCKMNT	1	161	147	166	235	235	4367	22	26	26	\ 0	0 4367		103	103	0	1 45			•	_	0
	18744 5MURFREE	19527 5BLCKMN ⁻	1	161	147	166	235	235	4367	51	95	95	· 0	0 4367	. 29	66	66	0	0 45	4367 63	3 106	106	_	0
	18012 5PARADIS	18926 5ABERD T	_	161	147	166	350	320	160	63	87	87	\ 0	0 160		105	105	1	0			•	_	0
	18708 5LEBANON	18914 5GLADV T	_	161	147	166	151	151	4370	19	96	96	\ 0	0 4370		66	66	0	0 43				_	0
	18684 5INTERCH	19083 5HURRICA	4	161	147	166	320	320	4452	22	26	26	\ 0	0 4452		101	101	0	1 44				_	0
•	18427 8PARADIS	18428 8MONTGC	1	200	147	166	1732	1732	1	20	ı	I	0	0		!	I	0	0	-			*	* * *
-	18692 5E BOWL	18926 5ABERD T	_	161	147	166	350	320	160	63	85	82	\ 0	0 160		102	102	0	-				0	-
	26855 10NEWTVL	26857 10NEWTVI	7	138-16	31 210		168	176	1070	28	66	94	· 0	0 1070		107	102	0	1 10			103	0	-
	27028 11GR RV	27095 11GR RVR	2	161-138	38 211	211	100	120	1	23	ı	1	\ 0	0 1303		26	26	0	0 15				0	7
	27028 11GR RV	27095 11GR RVR	3	161-138	38 211	211	100	120	1	23	1	i	\ 0	0 1302		26	26	0	0				0	7
	18705 5CENTER	18756 5SMTH TN	_	161	147	166	151	151	4367	82	95	95	\ 0	0 4367		26	26	0	0 45				0	7
	27028 11GR RV	27095 11GR RVR	۲	161-138	38 211	211	100	120	1	23	1	i	\ 0	0 1302		26	26	0	0			103	0	7
	99798 5BATEVL	99808 5CUSHMN	1	161	151	159	148	148	30	94	26	97	/ 0	0 30		86	86	/ 0	0				0	/ 2
Group 2	2 Pre-existing Overload in Case1 with Increased Overloading in Case2	ad in Case1 with Inc	rease	d Overloa	ding in C	ase2				Overload	1		< Less	ss Than <		Overload 2	ad 2				ò	Overload 3		
	18691 5BOWL GR	18880 5RUSS.SS	. 1	161	147	166	180	180	160	22	103	103	/ 0	1 160		116	116	1 /	0			119	1	0 /
	18450 5WILSNTN	18914 5GLADV T	_	161	147	166	151	151	4370	72	102	102	\ 0	1 4370	22	105	105	1	0	1370 29	112		-	0 /
c	26886 10NEWTVL	26855 10NEWTV	٦ 2	69-138	8 210	210	09	63	1162	124	213	203	*	1162		220	209	*		•		208	*	* * *
7	26886 10NEWTVL	26855 10NEWTVL	7	69-138	8 210		29	20	1165	111	191	183	**	1165		197	188	*		•			*	* * *
	18724 5PIN HOO	18738 5CANE RI	_	161	147		271	271	8	61	101	101	\ 0	1		105	105	_	0				-	0 /
	18711 5GALLATI	18890 5LASCASS	S 1	161	147	166	206	206	4260	80	106	106	_	0 4260		111	11	1	0 42				-	0

^{--- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload
Court of Contingencies Causing Overloads (A/B Stats)
A = Serious Overload > 105%
B = Overloaded Facility between 100% and 105% of Rated Capability ← 6 € 4



Thoroughbred Energy Campus

Comparison of Base Case to Worst of Case Studies

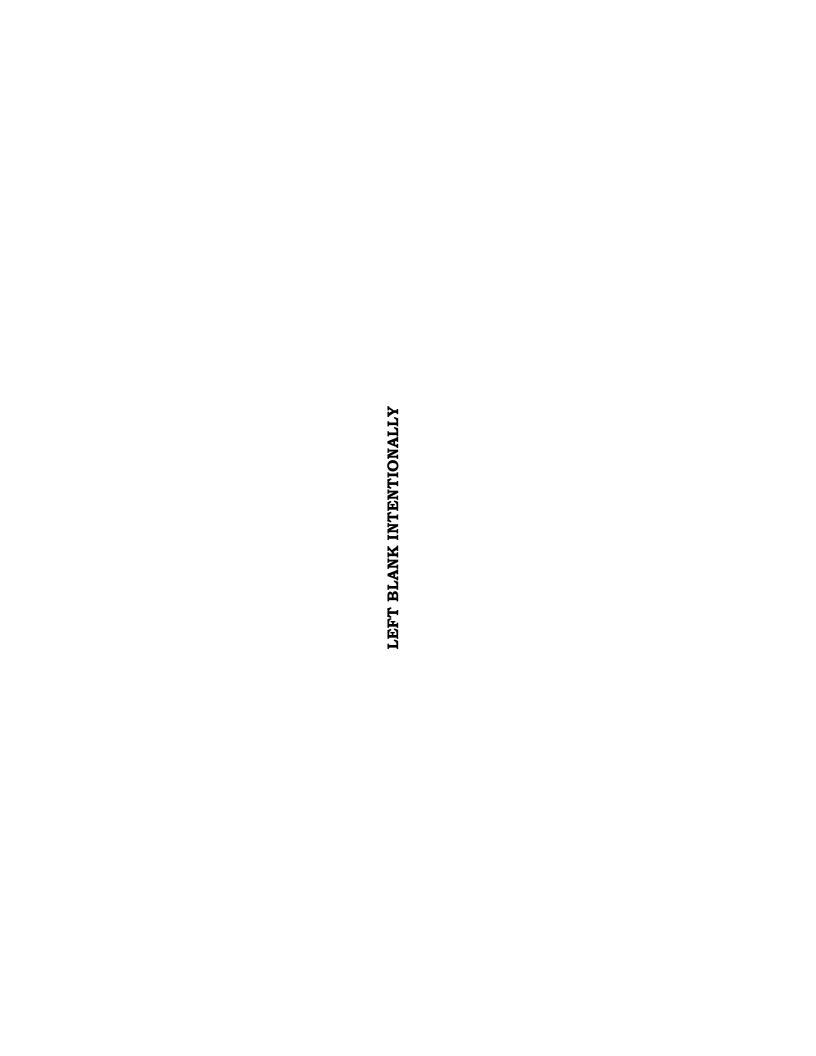
Thoroughbred Interconnection II - Thoroughbred Connected to Wilson, Green River and Paradise @ 161 kV

Loss of Green River Unit # 4 (104 MW)

	Brar	Branches Exceeding 100% of Emergency Rating)% of L	Emergenc	y Rating	,					BC05s21	(i	C161s05	05					C261s05		(
				,		•				Base Cas	Base Case 01 - 2005 Summer	5 Sumn	je		Thorough	Thoroughbred/1-750 MW @ 161 kV	MW @	161 k\	\	Thbred/1	-750MW@	hbred/1-750MW@161kV & 1-750MW@500k	1-750MV	/@500k/
							Ratings	ngs	Cont	Normal	Firs	First Contingency	Jency	ŏ	Cont Normal	_	First Contingency	ngenc	>	Cont	Normal	First	First Contingency	incy
_	From Name	To Name	Š	Base kV	/ Area	Zone	Norm	Emer	₽	System%	System% Norm %	Emer %	/ Y	= В	ID Syster	System% Norm % Emer	% Emer	W W	/ B	₽	System%	System% Nom % Emer	Emer %	A / B
_	New Overloads									Not Ove	Not Overloaded					ò	Overload 2					Overload 3	ad 3	
	27028 11GR RV	27095 11GR RVR	2	161-138	211	211	100	120	-	63	-	-	/ 0	0 13	303 97	140	117	5	1 1	1303	105	150	125	***
	27028 11GR RV	27095 11GR RVR	က	161-138	211	211	100	120	ŀ	63	1	I	0	0 13	02 97	140	117	7	/ 1	1302	105	150	125	* *
	27028 11GR RV	27095 11GR RVR	_	161-138	211	211	100	120	ı	63	ı	ı	0	0 13	1302 97	139	116	7	0 /	1302	105	149	124	* * *
	18012 5PARADIS	18880 5RUSS.SS	-	161	147	166	320	320	160	20	90	6	0	0		11	11	~	/ 2	160	98	107	107	1 / 0
	18743 5SMYRNA	19527 5BLCKMNT	_	161	147	166	235	235	4367	72	96	96	0	0 43		103	103	0	/	4367	99	110	110	1 / 0
	18744 5MURFREE	19527 5BLCKMNT	-	161	147	166	235	235	4367	21	95	95	0	0 43		86	86	0	0 /	4367	62	106	106	1 / 0
	18708 5LEBANON	18914 5GLADV T	_	161	147	166	151	151	4370	19	96	96	0	0 43		66	66	0	0 /	4370	56	106	106	1 / 0
	18684 5INTERCH	19083 5HURRICA	-	161	147	166	320	320	4452	22	26	26	0	0 44		100	100	0	/	4452	62	105	105	0 / 1
	18012 5PARADIS	18926 5ABERD T	-	161	147	166	320	320	160	62	88	88	0	0		102	102	0	/ 1	160	77	103	103	0 / 1
	18427 8PARADIS	18428 8MONTGO	-	200	147	166	1732	1732	1	29	I	1	0	0		1	1	0	0 /	92	102	103	103	* *
	18705 5CENTER	18756 5SMTH TN	-	161	147	166	151	151	4367	85	92	95	0	0 43		96	96	0	0 /	4367	95	103	103	0 / 2
	99798 5BATEVL	99808 5CUSHMN	-	161	151	159	148	148	30	92	26	26	0	0		86	98	0	0 /	30	66	101	101	0 / 3
	18692 5E BOWL	18926 5ABERD T	-	161	147	166	350	350	-	61			/ 0	0		100	100	0	/ 0	160	92	100	100	1
	Pre-existing Overload in Case1 with Increased Overloading in Case2	d in Case1 with Incre	esed (Overload	ing in Ca	se2				Overload	d 1		> L€	Less Than <	>	Ŏ	Overload 2					Overload 3	ad 3	
	18691 5BOWL GR	18880 5RUSS.SS	-	161	147	166	180	180	160	53	100	100	/ 0	1 16			113	~	0 /	160	62	116	116	1 / 0
	18450 5WILSNTN	18914 5GLADV T	-	161	147	166	151	151	4370	21	102	102	0	1 43			105	_	0 /	4370	58	112	112	1 / 0
	18724 5PIN HOO	18738 5CANE RI	-	161	147	166	271	271	80	62	101	101	0	-			106	-	0 /	80	99	106	106	1 / 0
	18711 5GALLATI	18890 5LASCASS	-	161	147	166	206	206	4260	8	107	107	1	0 42	4260 83	112	112	-	0 /	4260	82	111	111	1 / 0
	26886 10NEWTVL	26855 10NEWTVL	7	69-138	210	210	09	63	1162	124	214	203	*				208		* * *	1162	128	218	208	*
	26886 10NEWTVL	26855 10NEWTVL	-	69-138	210	210	29	20	1165	111	191	183	**				187		* * *	1165	114	195	187	* *

^{-- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload
Count of Contingencies Causing Overloads (A/B Stats)
A = Serious Overload > 105%
B = Overloaded Facility between 100% and 105% of Rated Capability

t. 0, ω, 4,



Thoroughbred Energy Campus

Comparison of Base Case to Worst of Case Studies

Thoroughbred Interconnection III - Thoroughbred Connected to Wilson @ 345 kV Looped to Smith and Coleman with a 161 kV Circuit from Wilson to Paradise

All Base Case Generators in Service

		Preschoe Eventaine 100% of Emoratory Dating	100%	of Emo	od vodosa	fing						BC05s01					C171s05	5				C271s05	2		
		DIGITOTIES EXCEE	You fill		ilgelicy na	6			<u> </u>	Ш	Base Case 01 - 2005 Summer	3 01 - 20C	5 Summ	er		Thoroughbred/1-750 MW @ 345 kV	d/1-750	MW @	345 kV	Thbi	hbred/1-750MW@345kV & 1-750MW@500k\	V@345kV	8 1-750N	W@500	k\
								Ratings		Cont	Normal	Firs	First Contingency	ency	Cont	it Normal	ΙŒ	First Contingency	ingency	Cont	it Norma		First Contingency	gency	
	From Name	2	Name	čķ	Base kV Area Zone Norm	Area	Zone	Norm	Emer	<u>∞</u>	System% Norm % Emer %	Norm %	Emer %	A / B	_	System% Norm % Emer % A	Norm 5	% Emer	/	D		System% Norm % Emer % A	Fmer %	/ V	В
Group	Group 1 New Overloads	ıls									Not Overloaded	loaded					Ove	Overload 2				Ove	Overload 3		
	18743 5SMYRNA	VA 19527 5BLCKMNT	CKMNT	-	161	147	166	235	235 4	4367	54.3	96.5	96.5) / 0	0 4367	7 56.2	6.66	6.66	/ 0 6	0 4367	7 65.0	109.6	109.6	1 /	0
	18012 5PARADIS	OIS 18880 5RUSS.SS	SS.SS	-	161	147	166	320	320	160	70.1	90.3	90.3) / 0	160	84.3	105.1	105.	1 1	0 160		101.7	101.7	0	_
	18708 5LEBANON	ION 18914 5GLADV T	ADV T	-	161	147	166	151	151	4370	18.7	95.7	95.7) / 0	7 437(98.1	98.1	0	0 437				0	_
	18744 5MURFREE	REE 19527 5BLCKMN	CKMNT	-	161	147	166	235	235 4	4367	51.0	92.3	92.3) / 0	7 4367	7 52.9	92.6	92.6	0 (0 4367	7 61.4	104.9	104.9	0	_
_	18684 5INTERCH	CH 19083 5HURRICA	RRICA	_	161	147	166	320	320 4	4452	27.0	96.5	96.5) / 0	7 445		97.8	97.8	\ 0 *	0 445				0	_
	27094 11GR ST	TL 27142 11SMITH	MITH	_	138	211	211	241	241	1	25.9	ı	I) / 0	125,		102.2	102.2	2 0 /	1 125		•	103.6	0	_
	18427 8PARADIS	DIS 18428 8MONTGO	OSTN	-	200	147	166	1732	1732	1	58.6	1	1	/ 0	0	58.6	1	1	0	0 65			102.9	**	
	18705 5CENTER	ER 18756 5SMTH TN	TH TN	-	161	147	166	151	151 4	4367	82.1	92.2	92.2) / 0	0 4367	7 85.4	95.9	95.9	/ 0 6	0 436	7 91.2	101.7	101.7	0	_
	99798 5BATEVL	'L 99808 5CUSHMN	SHMN	_	161	151	159	148	148	30	95.3	97.6	97.6) / 0	30	96.2	98.4	98.4	/ 0 1	0 30		101.0	101.0	/ 0	4
Group	Group 2 Pre-existing Overload in Case1 with Increased Overloading in Case2	Overload in Case 1	with Inci	reased C	Overloadin	g in Cas	se2			0	Overload 1	-		< Less	< Less Than <		Ove	Overload 2				Ove	Overload 3		
	18691 5BOWL GR	GR 18880 5RUSS.SS	SS.SS	1	161	147	166	180	180	160	53.4	100.7	100.7	. / 0	160		108	108	1 /	0 160		111.5	111.5	1 /	0
	18450 5WILSNTN	TN 18914 5GLADV	ADV T	_	161	147	166	151	_	4370	21.3	101.7	101.7	· / 0	1 437(0 21	104.1	104.	1 0 /	1 437			111.0	-	0
c	18724 5PIN HOO	O 18738 5CANE RI	NE RI	-	161	147	166	271	271	80	61.6	101	101	. 0	1 80		100	100	0	0 80		106.7	106.7	1	0
4	18711 5GALLAT	TI 18890 5LASCASS	SCASS	-	161	147	166	206	206 4	1260	80.5	107.6	107.6	1 /	0 4260		112.1	112	1 1	0 4260	0 85.1		111.2	1	0
	26886 10NEWTVI	TVL 26855 10NEWTV	EWTVL	7	69-138	210	210	09	63	1162	124.9	214.9	204.7	* * *	116	2 127.7	219	208.6	** 9			•	205.9	*	
	26886 10NEWTVI	TVL 26855 10NEWTVI	EWTVL	-	69-138	210	210	29	70	1165	111.9	192.5	184.2	* *	1165	`	196.1	187.7	*** /			193.6	185.3	***	

^{--- =}Less than the Minimum Reporting Level of 85%

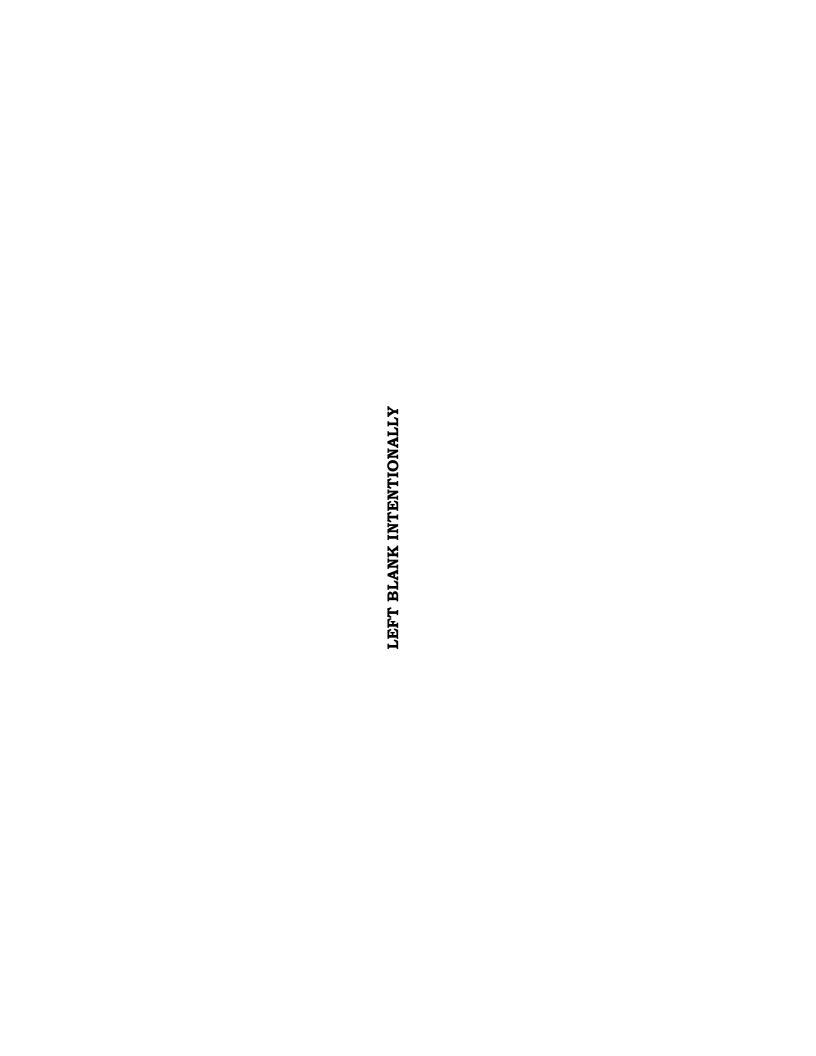
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria

=== = Facility did not overload

Count of Contingencies Causing Overloads (A/B Stats)

A = Serious Overload > 105%

B = Overloaded Facility between 100% and 105% of Rated Capability ← 0, 6, 4;



Thoroughbred Energy Campus

Comparison of Base Case to Worst of Case Studies

Thoroughbred Interconnection III - Thoroughbred Connected to Wilson @ 345 kV Looped to Smith and Coleman with a 161 kV Circuit from Wilson to Paradise

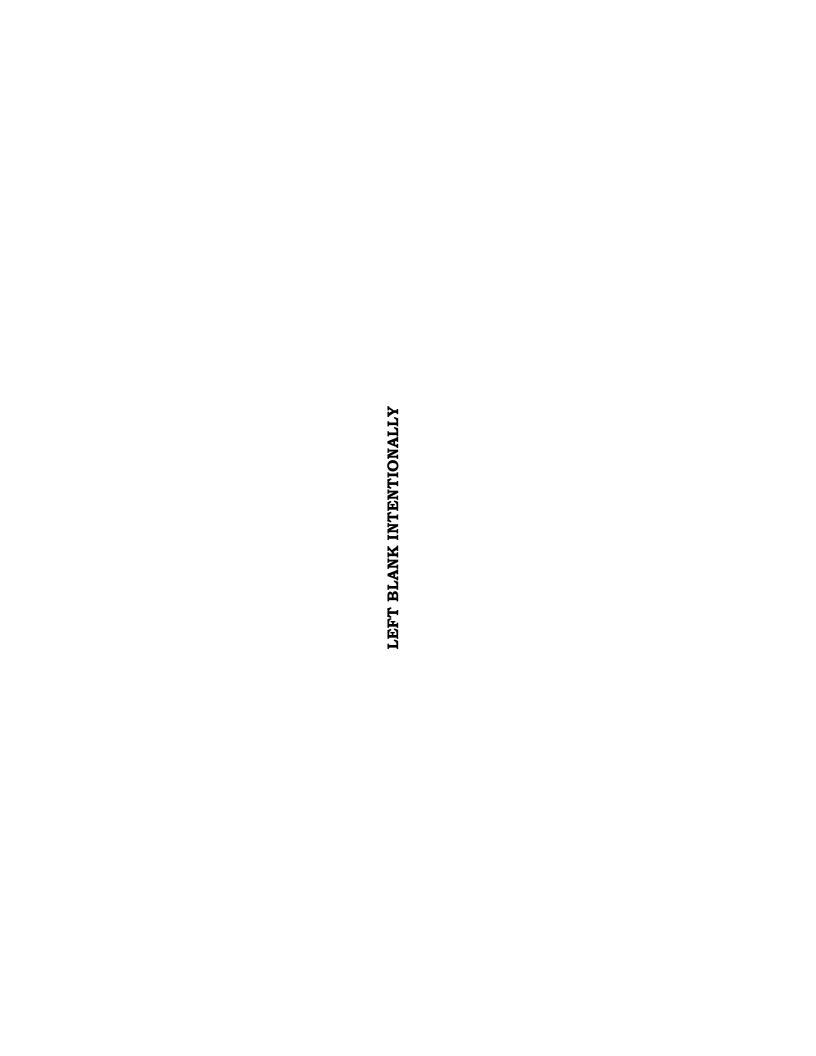
Loss of Brown N Unit# 3 (441 MW)

		Brat	Branches Exceeding 100% of Emergency Rating	ng 100%	of Emer	gency Ra	ating					1	BC05s11	Simon		F	C181s05	C181s05	W @ 341	74	TAAT	4/4 750MM	C281s05	5 2.1.750M	Werd
									Ratings		Cont	Normal	First (First Contingency	ncy	Cont	Normal	First	First Contingency	ency	Cont	ut Normal	al Fi	First Contingency	vv@200
	From	Name	To Name		kt Ba	Ckt Base kV Area		Zone	Norm	Emer	<u>s</u>	ystem%	System% Norm % Emer %	mer %	A / B	₽	System% Nom % Emer %	Nom %	Emer %	4	<u>о</u> 8	Systen	System% Nom % Emer % A	Emer %	A / B
oup 1	Group 1 New Overloads	oads										Not Overloaded	loaded					Overload 2	ad 2				Ove	Overload 3	
	18743 5SMYRNA	MYRNA	19527 5BLCKMN1	1NT	1	. 191	147	166	235	235	4367	54.7	9.96	9.96	0 / 0	4367	56.6	6.66	6.66	/ 0	0 4367	7 65.3	109.6	109.6	1 /
	27094 11GR STL	GR STL	27142 11SMITH	T	_	138	211	211	241	241	1	22.5	ı	1	0 / 0	1252	68.1	104.2	104.2	\ 0	1 1252	2 68	105.8	105.8	1
	18708 5LEBANON	EBANON	18914 5GLADV T			. 191	147	166	151	151	4370	18.8	95.8	8.56	0 / 0	4370	18.5	98.1	98.1	\ 0	0 4370	0 25.6	104.9	104.9	/ 0
7	18744 5M	18744 5MURFREE	19527 5BLCKMN ⁻	٦	_	161	147	166	235	235	4367	51.4	92.4	92.4	0 / 0	4367	53.2	92.6	92.6	\ 0	0 436	7 61.7	104.9	104.9	0
-	18684 5INTERCH	TERCH	19083 5HURRICA	CA	_	. 191	147	166	320	320	4452	57.2	8.96	8.96	0 / 0	4452	28	86	86	\ 0	0 445	2 61.8	104.3	104.3	0
	18012 5PARADIS	ARADIS	18880 5RUSS.SS	SS	_	. 191	147	166	350	350	160	69.5	86.8	868	0 / 0	160	83	103.8	103.8	\ 0	1 160	79.5	100.4	100.4	0
	18427 8PARADIS	ARADIS	18428 8MONTGO	30		200	147	. 991	1732	1732	ı	58.6	ı	1	0 / 0	1	58.6	1	ı	· 0	0 65	102.2	2 102.9	102.9	* *
	18705 5CENTER	ENTER	18756 5SMTH TN	Z	_	. 191	147	166	151	151	4367	82.1	92.1	92.1	0 / 0	4367	85.3	95.7	95.7	\ 0	0 4367	7 91.1	101.5	101.5	0
onb 2	Pre-existin	ig Overload	Group 2 Pre-existing Overload in Case1 with Increased Overloading in Case2	Increase	d Overl	oading ir	Case2					Overload	1		< Less	: Less Than <		Overload 2	ad 2				Ove	Overload 3	
	18691 5BOWL GR		18880 5RUSS.SS	SS	-	. 191	147	166	180	180	160	22	102.6	102.6	0 / 1	160	57.2	109.4	109.4	1 /	0 160	9.09 (112.8	112.8	1 /
c	18450 5WILSNTN	/ILSNTN	18914 5GLADV T			161	147	166	151		4370	21.7	101.7	101.7	0 / 1	4370	21.4	104.1	104.1	\ 0	1 4370	0 29	11	11	1
۷	18724 5PIN HOO	00H N	18738 5CANE RI	碇		. 191	147	166	271	271	80	61.2	100.7	100.7	0 / 1	80	61.2	8.66	8.66	\ 0	0 80	66.4	106.7	106.7	1
,	18711 5GALLATI	ALLATI	18890 5LASCASS	SS	1	. 191	147	166	206	206	4260	80	106.4	106.4	1 / 0	4260	83.1	110.8	110.8	1 /	0 4260	0 84.4	109.8	109.8	1 /

^{--- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload

^{-. 6. 6. 4.}

Count of Contingencies Causing Overloads (A/B Stats)
A = Serious Overload > 105%
B = Overloaded Facility between 100% and 105% of Rated Capability



Thoroughbred Energy Campus

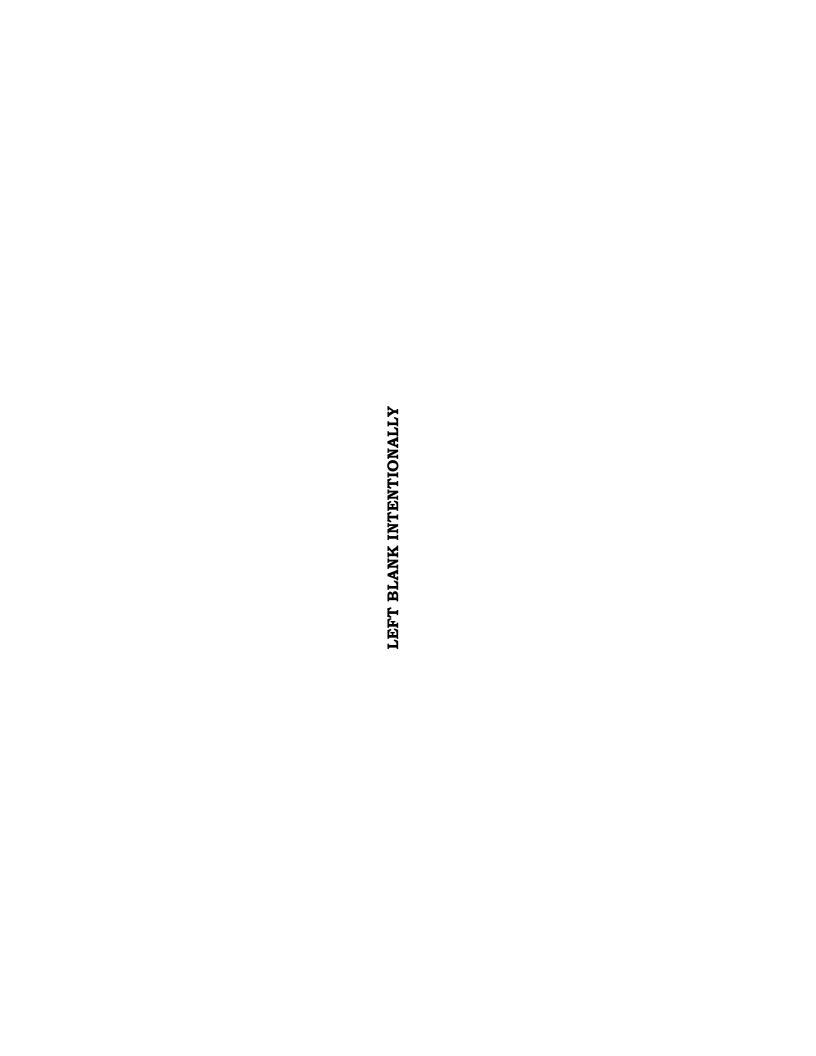
Comparison of Base Case to Worst of Case Studies

Thoroughbred Interconnection III - Thoroughbred Connected to Wilson @ 345 kV Looped to Smith and Coleman with a 161 kV Circuit from Wilson to Paradise

Loss of Green River Unit # 4 (104 MW)

		Branches Exceeding 100% of Emergency Bating	JO %0	Emergency	Pating					_	BC05s21					C191s05					C291s05		
		ialiciles Exceeding 10	5	Lineigency	אמוווא				В	Base Case 01 - 2005 Summer	01 - 2005	Summer		⊥	Thoroughbred/1-750 MW @ 345 kV	d/1-750 M	W @ 34	5 kV	Thbre	Thbred/1-750MW@345kV & 1-750MW@500k	/@345kV 8	1-750MW	@500k\
							Ratir	tings	Cont	Normal	First	First Contingency	ıcy	Cont	Normal	First	First Contingency	ency	Cont	it Normal		First Contingency	ncy
	From Name	To Name	쓚	Base kV	Area	Zone	Norm	Emer	₽	System% Norm %		Emer %	A / B	₽	System%	System% Norm % Emer % A	≅mer %	/	В		System% Norm % Emer %	Emer % '	A / B
Group 1	New Overloads									Not Overloaded	loaded					Overload 2	ad 2				Over	Overload 3	
	18743 5SMYRNA	19527 5BLCKMNT	1	161	147	166	235	235	4367	54.2	6.3	6.3	0 / 0	4367	56.1	9.66	9.66	/ 0	0 4367	7 64.8	109.2	109.2	1 / 0
	27094 11GR STL	27142 11SMITH	_	138	211	211	241	241	I	29.6	1	1	0 / 0	1685	72.7	107.7	107.7	1	168	10	107.9	107.9	2 / 0
	18708 5LEBANON	N 18914 5GLADV T	_	161	147	166	151	151	4370	18.7	92.6	92.6	0 / 0	4370	18.4	6.76	6.76	\ 0	0 437		104.7	104.7	0 / 1
	18744 5MURFREE	E 19527 5BLCKMNT	_	161	147	166	235	235	4367	50.9	92.1	92.1	0 / 0	4367	52.7	95.3	95.3	\ 0	0 4367	7 61.2	104.6	104.6	0 / 1
~	18684 5INTERCH	19083 5HURRICA	_	161	147	166	320	320	4452	22	96.5	96.5	0 / 0	4452	57.8	7.76	97.7	\ 0	0 445		104	104	0 / 1
	18012 5PARADIS	18880 5RUSS.SS	_	161	147	166	320	320	160	69.7	86.8	86.8	0 / 0	160	82.7	103.3	103.3	\ 0	160		8.66	8.66	0 / 0
	18427 8PARADIS	18428 8MONTGO	_	200	147	166	1732	1732	I	58.6	ı	1	0 / 0	1	58.6	i	i	\ 0	0 65	•	102.9	102.9	*
	18705 5CENTER	18756 5SMTH TN	_	161	147	166	151	151	4367	81.9	95	95	0 / 0	4367	85.1	92.6	92.6	\ 0	0 436	8.06 7	101.2	101.2	0 / 1
	99798 5BATEVL	99808 5CUSHMN	1	161	151	159	148	148	30	94.8	97.1	97.1) / 0	30	92.6	97.8	97.8	/ 0	0 30	98.4	100.6	100.6	0 / 2
Group 2	Pre-existing Overl	Pre-existing Overload in Case1 with Increased Overloading in Case2	eased.	Overloadin	ıg in Ca	se2				Overload	1		- Fess -	Than <		Overload 2	ad 2				Overload 3	oad 3	
	18691 5BOWL GR	R 18880 5RUSS.SS	1	161	147	166	180	180	160	53.2	100.3	100.3) / 1	160	52.5	107	107	1 /	0 160	28.8	110.3	110.3	1 / 0
	18450 5WILSNTN	I 18914 5GLADV T	_	161	147	166	151	151	4370	21.3	101.5	101.5	7 /	4370	7	103.8	103.8	\ 0	1 437	0 28.7	110.8	110.8	1 / 0
c	18724 5PIN HOO	18738 5CANE RI	_	161	147	166	271	271	8	61.6	101.1	101.1	7 1	8	61.6	100.2	100.2	\ 0	1		107	107	1 / 0
7	18711 5GALLATI	18890 5LASCASS	_	161	147	166	206	206	4260	80.4	107.4	107.4	1 0	4260	83.4	111.7	111.7	_	0 426	0 84.7	110.7	110.7	1 / 0
	26886 10NEWTVI	L 26855 10NEWTVL	7	69-138	210	210	09	63	1162	124	213.5	203.3	***	1162	126.4	216.8	206.5	**	1162	2 126.4	216.2	205.9	***
	26886 10NEWTVI	L 26855 10NEWTVL	_	69-138	210	210	29	70	1165	111	191.2	183	***	1165	113.2	194.1	185.8	***	1165	5 113.2	193.6	185.3	***

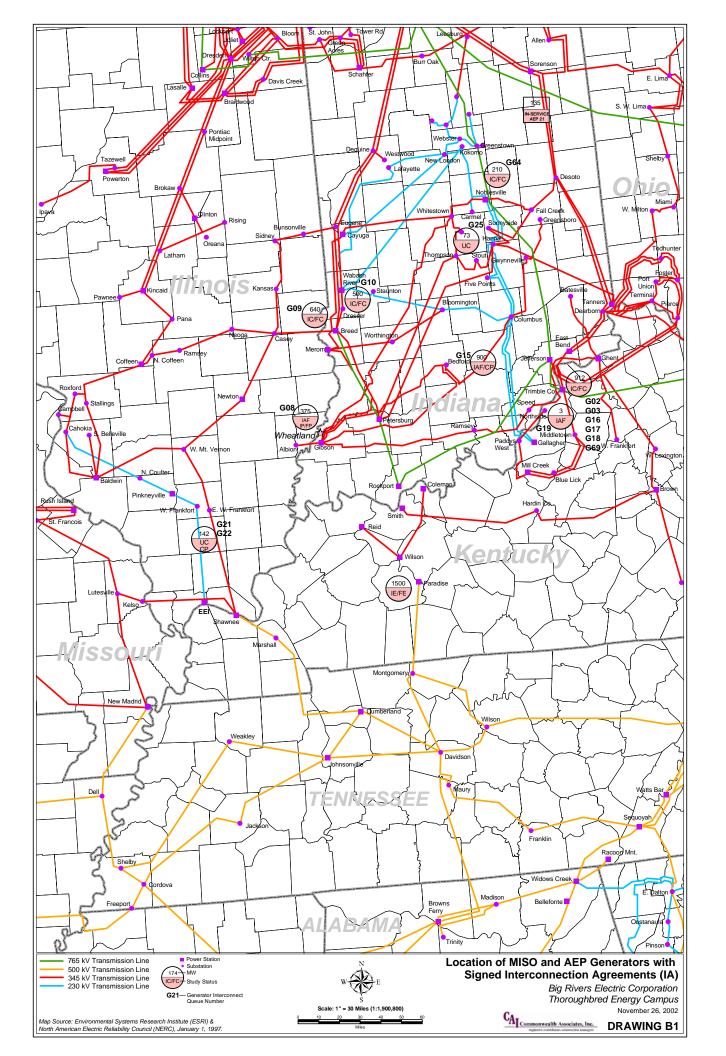
^{--- =}Less than the Minimum Reporting Level of 85%
*** = Normal System Flow (ie - with No Outages) exceeds the Overload Criteria
=== = Facility did not overload
Count of Contingencies Causing Overloads (A/B Stats)
A = Sentous Overload > 105%
B = Overloaded Facilty between 100% and 105% of Rated Capability -. 6, 6, 4,

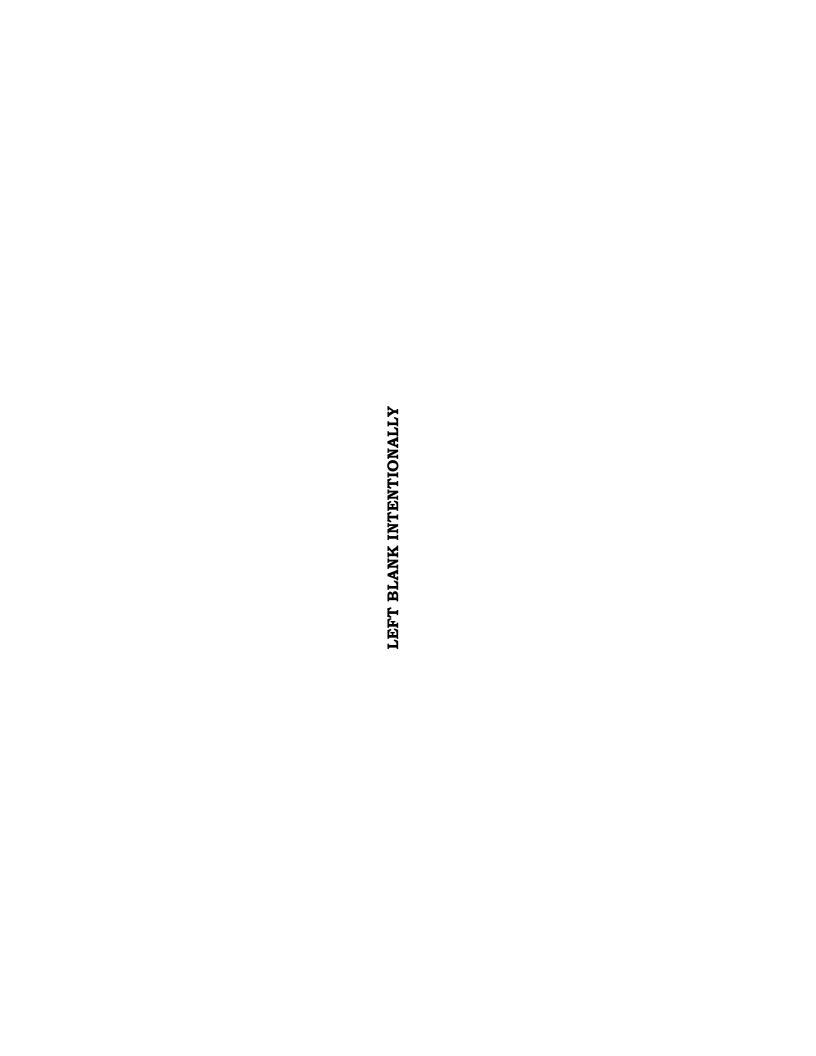


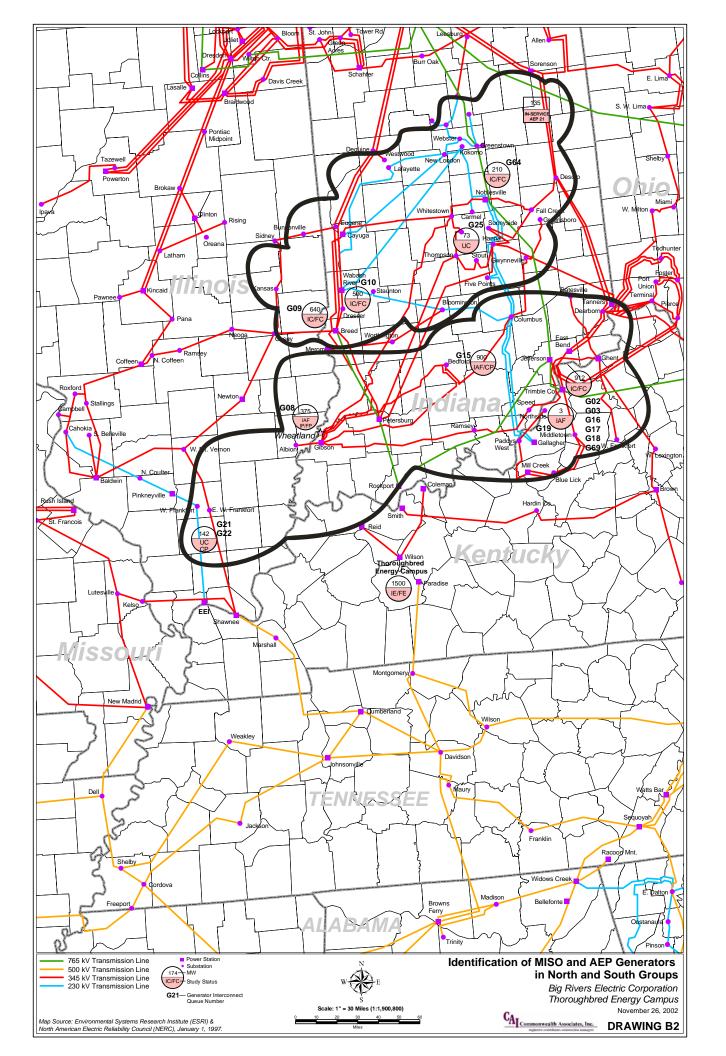
Thoroughbred Energy Campus Area Losses for Preliminary Power Flow Studies (Megawatts)

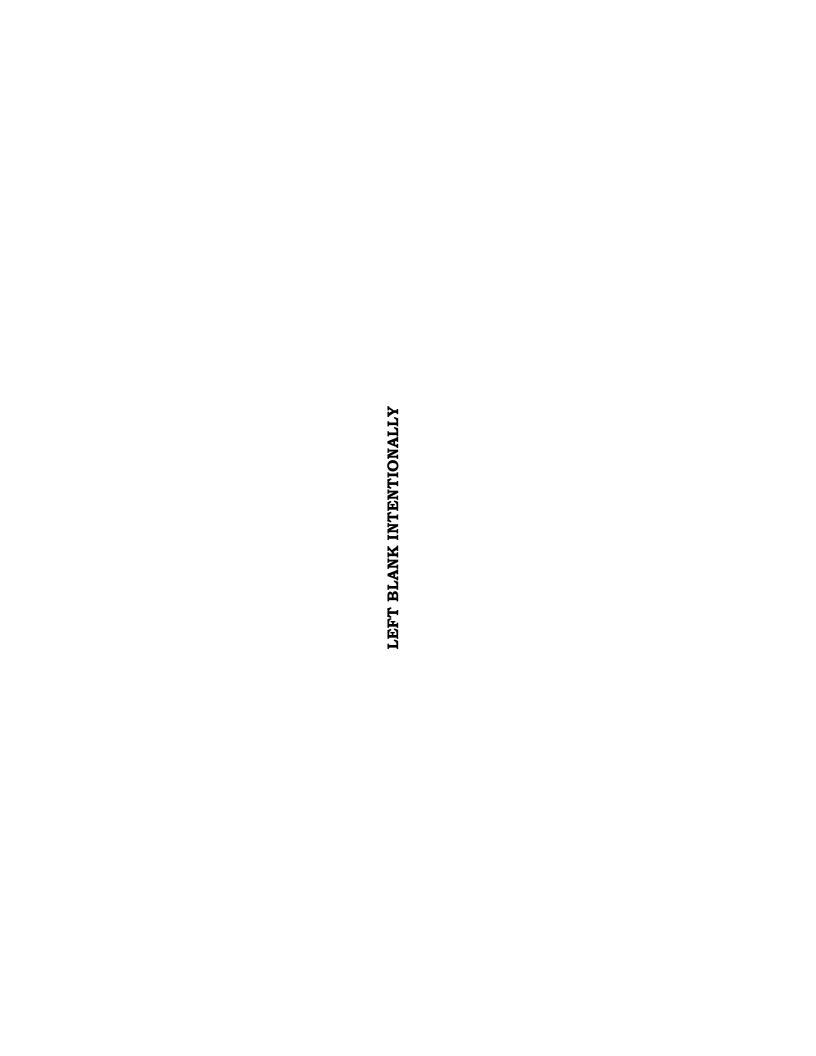
Case ID	TVA MW	Change from BC05s01	Case ID	LGEE	Change from BC05s01	Case ID	BREC	Change from BC05
C251	629	53	C101	184	26	C101	31	22
C241	626	51	C201	184	25	C111	31	22
C261	623	47	C111	180	22	C121	30	21
C281	615	39	C211	179	21	C201	30	21
C211	615	39	C121	178	19	C211	59	21
C271	613	37	C221	176	18	C221	59	20
C201	611	36	C241	173	41	C271	20	1
C291	611	36	C141	171	12	C171	20	1
C221	610	35	C251	170	11	C181	20	1
C151	009	25	C261	169	11	C281	20	1
C141	262	21	C271	169	10	C191	19	7
C161	594	19	C151	168	10	C291	19	1
C181	586	1	C161	168	6	C251	4	2
C111	582	10	C171	168	6	C241	13	2
C171	584	o	C291	165	7	C261	13	4
C101	583	7	C191	165	9	C151	13	4
C191	582	7	C281	163	4	C141	12	4
C121	582	9	C181	162	က	C161	12	က
BC11	219	ဇ	BC01	159	0	BC11	ဝ	_
BC01	575	0	BC21	157	-2	BC21	ဝ	0
BC21	212	7	BC11	156	ကု	BC01	တ	0

APPENDIX B DRAWINGS







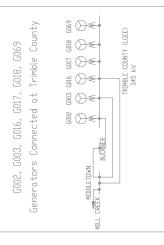


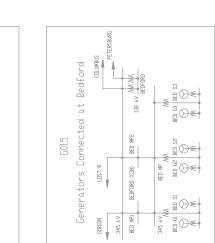
MISD and AEP IA Generator Connections 2005 Summer

Generators Connected at Wheatland

8009

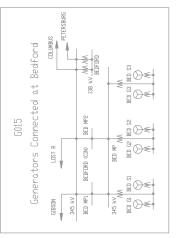
THOMPSON





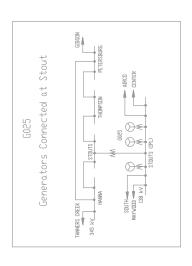
Generators Connected at Buckner

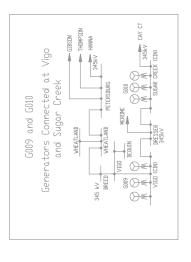
6019



M M M 345kV TRIMBLE BUCKNER (LGEE) 3

MIDDLETOWN





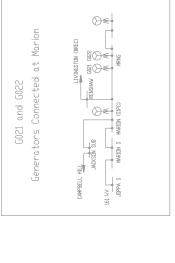
— 345kV

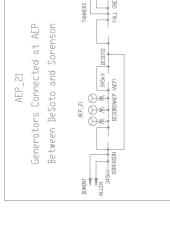
WHEATLAND

BREED PETERSBURG 345kV

M M WHEATLAND (ENVC)

WHEATLAND GENVID





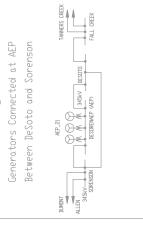
Generators Connected at Noblesville

6064

HORTONVILLE

MUBLESVILLE

345 KV FALL CREEK MA 230 KV



NUBLESVILLE (CIN)

LEFT BLANK INTENTIONALLY

Thoroughhbred Energy Campus 2005 Summer

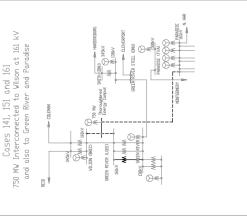
Interconnection IIA

Cases 101, 111 and 121 750 MW Interconnected to Wilson at 345 kV

9

Interconnection I

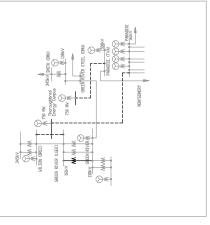
Cases 141, 151 and 161 750 MW Interconnected to Wilson at 161 kV and also to Green River and Paradise 9



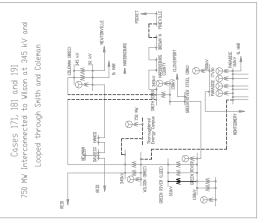
750 MW Interconnected to Wilson at 161kV and to Green River and Paradise and also 750 MW Interconnected to Paradise at 500 kV Cases 241, 251 and 261

750 MV Interconnected to Vilson at 345 kV and 750 MV Interconnected to Paradise at 500 kV $\,$

Cases 201, 211 and 221



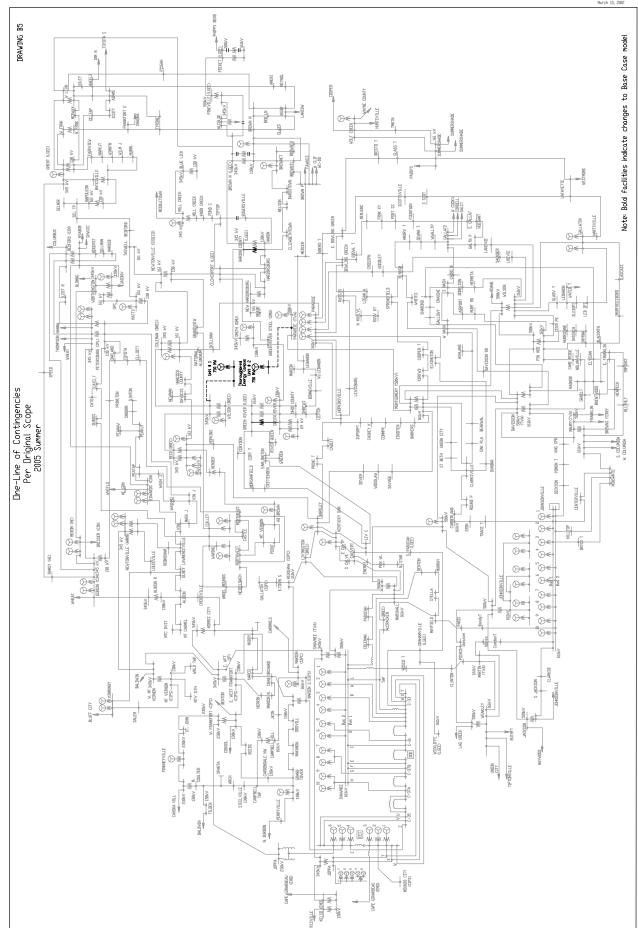
Interconnection III



750 MW Interconnected to Wilson at 345 kV and 750 MW Interconnected to Paradise at 500 kV Looped through Smith and Coleman and also Cases 271, 281 and 291 91

Note: Bold facilities indicate changes to Base Case model

LEFT BLANK INTENTIONALLY



LEFT BLANK INTENTIONALLY

APPENDIX C BASE CASE MODEL DEVELOPMENT

From: "Chris Bradley" < cbradley@bigrivers.com>

To: <<u>tlorloff@cai-engr.com</u>>
Subject: Thoroughbred Energy Campus Date sent: Fri, 24 Aug 2001 11:32:21 -0500

Terri,

The following multiple contingencies should be added to the Thoroughbred Energy Campus contingency list (the second two outages shouldn't result in any initial problems, but may come into play during the mitigation study phase):

27561 14WILSO7 345 KV 27563 14COLE 7 345 WITH THE 155 MW 14COLE 5 UNIT 3 OUTAGED.

27553 14WILSO5 161 27028 11GR RV 161 WITH THE 250 MW 11SMITH UNIT 2 OUTAGED.

27553 14WILSO5 161 27028 11GR RV 161 WITH ONE PARADISE (TVA) 161 KV GENERATING UNIT OUTAGED.

Base Case Changes:

Since the BREC 69 kV facilities are equivalized, the loadings should be ignored (or the ratings should be significantly raised).

I may be changing the BREC generation dispatch (and interchange). I plan to discuss this with others (I will let you know early next week).

Chris Bradley Senior Planning Engineer Big Rivers Electric Corporation Phone 270-827-2561 ext 2226

From: "Marler, David E." <demarler@tva.gov>

To: tlorloff@cai-engr.com

Copies to: rdcook@cai-engr.com, "Gardner, John R." <jrgardner@tva.gov>

Subject: RE: Thoroughbred Data Request #1
Date sent: Fri, 24 Aug 2001 15:21:30 -0400

Terri,

The data requested from TVA is listed below. Let me know if you need anything else or have any problem with the attached files.

B1.

- 1. TVA.ppt shows the TVA transmission system in the Paradise area
- 2. No new generation to add
- 3. No modifications to add
- 4. No special facilities to include
- 5. No combinations to include
- 6. No multiple element contingencies to include

B2.

7. Positive sequence - FA05SPF.raw Zero sequence - FA05SPF.seq Notes: These files are in PSS/E raw data format. TVA uses 1.05pu voltages

and \ddot{X} "d(sat) impedances in fault cases. The threshold impedance must be set

to zero (not 0.00001) to prevent improper isolating of buses.

B3 data will be supplied later.

David E. Marler, P.E.

TVA - Transmission Planning

Phone: 423-751-7100 Fax: 423-751-3453 Email: demarler@tva.gov From: "Robert Hunzinger" < hunzingerre@omu.org >

To: <<u>tlorloff@cai-engr.com</u>>
Subject: TBred Energy data request #1 Date sent: Wed, 29 Aug 2001 14:30:35 -0500 Copies to: "Jan Howard" < howardil@omu.org>

Terri, OMU's information in response to DR #1 is as follows:

B1 - load flow modelling

- 1. Electrical One-Line We will forward a CAD version of the one-line soon. The one-line will show the OMU Elmer Smith Station (ESS) switchyard, which includes the KU interconnections, and OMU's internal load serving 138 kV and 69 kV "transmission system" facilities located at the plant switchyard. Note: For purposes of the Tbred studies, the OMU system is adequately modelled in the Summer 2005 case with the representation that KU has included. Confidentially, If we need further detail as the study progresses, BREC has a more detailed model that includes the entire OMU 69 kV looped transmission system.
- 2. Not applicable to OMU (no new generation)
- 3. Not applicable to OMU (no new transmission facilities)
- 4. No special facilities to add to the contingency list.
- 5. Combination single line and single generator contingencies:
- 5-1. OMU ESS to KU Green River Steel 138 kV line OMU ESS Unit #2
- 5-2. OMU ESS to KU Green River Steel 138 kV line OMU ESS Unit #1
- 5-3. OMU ESS 138 / 345 kV Transformer (KU OMU ESS to KU Brown 345 kV line) OMU ESS Unit #2
- 5-4. OMU ESS 138 / 345 kV Transformer (KU OMU ESS to KU Brown 345 kV line) OMU ESS Unit #1

Of course we are also interested in the single facility contingency results on their own, without generation outages.

6. Multiple element contingencies Complete loss of OMU ESS Generation (both units #1 and #2)

For the above cases, I am assuming the CAI will also review the system during light load periods. In some cases, facility loading during light load periods will be higher than during peak load periods. An example is the loading on the OMU ESS 138/345 kV transformer. We have seen actual flows high on this transformer during light load periods with OMU ESS generation full up, KU Green River Station generation full up, and likely system South to North transfer conditions.

B2 Short Circuit Modelling

7. Positive and Zero Sequence Models

Again, the KU representation of the OMU system should be adequate for the first cut review for the short circuit study. It is our understanding that KU has the positive and zero sequence impedances included in their model. We expect to see that there is x% change in available fault MVA at the OMU ESS 138 kV bus

due to the Tbred generation addition. OMU will review the magnitude of the increase for any adverse affects on our system. If significant changes occur, the BREC more detailed representation of the OMU system could be utilized to further analyze. The effects of future system improvements - such as 345 kV sources to the OMU bus may require further detail.

Please contact me if there are any questions. Thanks, Bob Hunzinger

From: "Chris Bradley" <cbradley@bigrivers.com>
To: "Terri Orloff" <tlorloff@cai-engr.com>,

"Cook, Rick" <rdcook@cai-engr.com>

Subject: Thoroughbred: BREC dispatch for 05S

Date sent: Thu, 30 Aug 2001 08:14:11 -0500

Rick/Terri:

Big Rivers net export should be changed from -190 to 40 MW.

A 190 MW purchase from TVA should be eliminated (ratio gen down in TVA), a 40 MW sale to Hoosier (HE) should be added. -190 (+230 MW) = 40 MW

The Big Rivers dispatch should be:

Bus 27551 14REID 5 161 (UNIT 1:231 MW, 2: 223 MW, 3: 154 MW, 4 161 MW) = 769 MW Bus 27552 14COLE 5 161 (UNIT 1: 150 MW, UNIT 2: 150 MW, UNIT 3: 139 MW) = 439 MW Bus 27553 14WILSO5 161 404 MW = 404 MW Bus 27554 14REID 69 (UNIT 1-MAY BE LISTED AS 5: 32 MW, CT 65 MW) = 97 MW

Total change in generation 270 MW

Contingencies:

Cont 3110 27561 14WILSO7 345 KV 27563 14COLE 7 345 WITH THE <u>155 MW</u> 14COLE 5 UNIT 3 OUTAGED.

(pick up gen: 16 MW at Wilson, 33 MW at Reid 69 kV, balance from anywhere North to Northwest (Cinergy? Area = 208-CIN)

Cont 3120 27553 14WILSO5 161 27028 11GR RV 161 WITH THE $\underline{250~\text{MW}}$ 11SMITH UNIT 2 OUTAGED. (pick up generation from the North, areas = 205-AEP, 356-AMREN, 208-CIN)

Cont 3130 27553 14WILSO5 161 27028 11GR RV 161 WITH ONE <u>335 MW or 358 MW</u> PARADISE (TVA) 161 KV GENERATING UNIT OUTAGED. (GSU BUS NO'S 18257,18258,18259,18260) (pick up generation from the North, areas = 205-AEP, 356-AMREN, 208-CIN)

Chris Bradley
Senior Planning Engineer
Big Rivers Electric Corporation
Phone 270-827-2561 ext 2226

TELEPHONE CALL FROM CHRIS REGARDING BREC DISPATCH

October 24, 2001 - 13:00:00

"Chris Bradley" <cbradley@bigrivers.com>
"Terri Orloff" <tlorloff@cai-engr.com>,
"Cook, Rick" <rdcook@cai-engr.com>
Thoroughbred: BREC dispatch for 05S
Thu, 30 Aug 2001 08:14:11 -0500

The Big Rivers dispatch to be changed

CHANGE FROM:

Bus 27551 14REID 5 161 (UNIT 1:208.4 MW, 2: 200.4 MW, 3: 131.2 MW, 4: 64 MW) = 604 MW Bus 27552 14COLE 5 161 (UNIT 1: 110 MW, UNIT 2: 150 MW, UNIT 3: 155 MW) = 415 MW Bus 27553 14WILSO5 161 420 MW = 420 MW Bus 27554 14REID 69 (UNIT 1-MAY BE LISTED AS 5: 0 MW, CT 0 MW) = 0 MW

BEFORE NEW DISPATCH: Generation = 1439 MW

The Big Rivers dispatch should be changed as follows:

CHANGE TO:

Bus 27551 14REID 5 161 (UNIT 1:231 MW, 2: 223 MW, 3: 154 MW, 4 161 MW) = 769 MW Bus 27552 14COLE 5 161 (UNIT 1: 150 MW, UNIT 2: 150 MW, UNIT 3: 155 MW) = 455 MW Bus 27553 14WILSO5 161 420 MW = 420 MW Bus 27554 14REID 69 (UNIT 1-MAY BE LISTED AS 5: 13 MW, CT 12 MW) = 25 MW

AFTER DISPATCH: Generation = 1669 MW

Change in Generation is 1669 MW - 1439 MW= 230 MW

From: "Toll, Michael" < Michael. Toll@lgeenergy.com > To: "Diane C. Wilkie" < dcwilkie@cai-engr.com >

Subject: RE: Thoroughbred Data Request #1
Date sent: Tue, 4 Sep 2001 13:09:08 -0400

In response to your data request:

1)Previously provided

2)add a sixth ct at 11TRIMBL 345. Capacity is 160 mw, output is zero.

Turn off units 4,5, & 6 at 11TRIMBL 345 and redispatch at 11BRWNCT 138 units 5,8 & 9

3) Make the following transmission changes:

11GR RV 161 11GR RVR 138 add third transformer (duplicate)
11HARDN 345 11HARDN 138 add second transformer (duplicate)
11ROGERS 138 11TIPTOP 138 remove circuit
11BRWN N 345 11BRWN N 138 remove second transformer
11BRWN N 345 11PINEVI 345 remove circuit
11POCK N 500 11POCK N 161 remove second transformer

4)outage all 500 and 345 kV facilities and all 138 and 161 kV facilities west of Brown Plant.

5)consider two generator outages, 1) 11GR RVR 138 kV unit 4 and 2)11BRWN N 138 kV unit 3. In both cases, purchase the generation from the north.

If you have additional questions, let me know.

Thanks,

Michael G. Toll

From: "Chris Bradley" < cbradley@bigrivers.com>

To: <<u>tlorloff@cai-engr.com</u>>
Subject: Thoroughbred Energy Campus Contingency List

Date sent: Fri, 19 Oct 2001 15:31:06 -0500

Terri,

I have reviewed the contingency list and have a few changes to propose.

Contingencies 1727, 1737, and 1742 are each part of two parallel transformers. Since another contingencies covers the loss of one transformer, these contingencies can be eliminated (no need to separately outaged each of two parallel transformers).

Contingencies 1757, 1760, and 1762 involve 69 kV facilities. These contingencies can be removed.

Chris Bradley Senior Planning Engineer Big Rivers Electric Corporation Phone 270-827-2561 ext 2226

Forwarded by: "Diane C. Wilkie" <dcwilkie@cai-engr.com>

Forwarded to: rdcook@cai-engr.com, tlorloff@cai-engr.com

Date forwarded: Mon, 5 Nov 2001 08:15:38 -0500

From: "Adams, Darrin" <darrin.adams@lgeenergy.com>
To: "Toll, Michael" <Michael.Toll@lgeenergy.com>,
"'dcwilkie@cai-engr.com'" <dcwilkie@cai-engr.com>,

"dcwlikie@cal-engr.com" <dcwlikie@cal-engr.com>,
"cbradley@bigrivers.com" <cbradley@bigrivers.com>

Subject: Thoroughbred Overload Comparisons - New Ratings

Date sent: Mon, 5 Nov 2001 08:08:13 -0500

As discussed in our conference call on Friday, several facilities Identified as overloaded in the study are limited by terminal facilities and/or phase-to-ground clearance. While there will be some cost associated with upgrading these limits, for the purposes of this study we will assume these transmission lines are limited by the conductor ratings at maximum ground clearance and that these transformers are limited by the maximum ratings based on nameplate ratings. Then, the appropriate ratings for these facilities are:

			Summer Normal	Summer Emergency
11GR RVR	11RQ TAP	69	89	110
10NEWTVL	11CLVRPR	138	162	199
11GR STL	11GR STL	138-69	93	107
11GR RVR	110HIO C	138 (circuit 1)	179	220
11GR RVR	110HIO C	138 (circuit 2)	179	220
11LEITCH	11LEITCH	138-69	93	107
11EASTVW	20STEPHN	69	56	68
110HIO C	11SHREWS	138	179	220
11LEITCH	11SHREWS	138	179	220
11EARL N	11RQ TAP	161	209	257
11ETOWN	20THARP	69	90	111
11GR STL	11OMU	69	146	181
11BKR LN	11BRWN N	138	224	277
11ADAMS	11TYRONE	138	179	220
20STEPHN	20UPTONJ	69	45	54

Please let Mike or I know if you have any questions about these changes. Darrin Adams
Group Leader, Transmission Planning
(859) 367-1153
darrin.adams@lgeenergy.com

From: "Chris Bradley" < cbradley@bigrivers.com>

To: "Terri L. Orloff" <<u>tlorloff@cai-engr.com</u>>, <<u>rdcook@cai-engr.com</u>>
Subject: Thoroughbred and Paducah

Date sent: Wed, 7 Nov 2001 11:42:59 -0600

Rick/Terri,

Thoroughbred:

The rating on the Wilson to Coleman 345 kV circuit can be increased from 598 MVA to 956 MVA (normal and emergency) with minor terminal modifications (if it becomes necessary, we can go even higher with more significant terminal improvements).

Paducah:

I went back through my Calpine file and found previously supplied generator data (over 1 year ago). I asked Bryan Schueler if the data was still accurate. He is supposed to be checking on it. I will let you know as soon as Bryan responds.

Chris Bradley Senior Planning Engineer Big Rivers Electric Corporation Phone 270-827-2561 ext 2226

From: "Adams, Darrin" < darrin.adams@lgeenergy.com>

To: "'Terri L. Orloff'" < tlorloff@cai-engr.com > Subject: Smith-Hardin County 345 kV Line Rating

Date sent: Tue, 12 Mar 2002 17:29:47 -0500

Copies to: rdcook@cai-engr.com, cbradley@bigrivers.com, "Toll, Michael"

The ratings for the Smith (OMU) to Hardin County 345 kV line are 1195 MVA normal and 1315 MVA emergency. These ratings can be updated in the Thoroughbred Energy Study.

Thanks,

Darrin Adams Group Leader, Transmission Planning LG&E Energy (859) 367-1153 darrin.adams@lgeenergy.com From: "Scott Yaeger" < ScottYaeger@peabodyenergy.com >

To: "Chris Bradley" < cbradley@bigrivers.com>

Subject: MISO Involvement in BREC Interconnection Study

Date sent: Wed, 3 Apr 2002 10:03:22 -0600

Copies to: michael.toll@lgeenergy.com, darrin.adams@lgeenergy.com,

"Jacob Williams" < JWilliams@PeabodyEnergy.com>,

rdcook@cai-engr.com, tlorloff@cai-engr.com

Chris.

I got your voice mail late yesterday regarding MISOs involvement in the BREC Interconnection Study and I wanted to drop you a note on the subject.

We have no issues with BREC or others sharing results or allowing MISO to start participating from here on out, in fact, it makes sense for them to be involved.

However, as you are aware this interconnection process has been well underway for some time and I do not think that we should be subject to a third party independent review/approval that would add additional delays into the schedule at this time. We are seeking interconnection from BREC (option III), who is not a MISO member to my knowledge. Other parties are involved as a result of the residual impacts on adjoining systems identified in BREC initial study. LGE may want MISO to represent them and that is fine as long as it does not delay the process.

MISO has very specific rules on how the interconnection process is to transition (posted Dec '01 and Jan '02). As I read the policy, studies underway will be completed and if and when subsequent studies/agreements are needed (ie-facility study or interconnection agreement with MISO members) then MISO will take on a more direct role. I am looking for LGE to provide direct and certain guidance on if and when Peabody needs to deal with MISO instead of LGE. I will wait to get a response from LGE.

Also, any luck at getting the model to import? LGE's request for an additional two week review period to look at the impacts on their 345Kv system will not start until they get the model. Nearly two weeks has passed since our conference call and a phone mail message yesterday indicated that they still did not have access to the model. Let me know when you get the model to work out and LGEs review begins.

Scott Yaeger Peabody Energy 314-342-7858 From: "Adams, Darrin" < darrin.adams@lgeenergy.com >

To: "Terri L. Orloff" <tlorloff@cai-engr.com>, Jerome Fohey

<JFohey@midwestiso.org>

Subject: RE: Thoroughbred Energy Campus - Interconnection III, Case 271

Date sent: Fri, 5 Apr 2002 14:23:36 -0500

Copies to: "Adams, Darrin" < darrin.adams@lgeenergy.com>

Based upon discussions Mike and I have had with members of Transmission Planning at the Midwest ISO, we feel it is appropriate to include representatives from the MISO in this study from this point forward. LG&E Energy is required to submit to the MISO for review any plans for new interconnections above 100 kV, so we would need to discuss this with them ultimately. Although the interconnection option being considered (Option III) does not connect the IPP directly to LGEE's system, an interconnection is required between LGEE's system and Big Rivers' system in order to facilitate the generator. Additionally, this generation may have impacts on other MISO members' systems that MISO may need to evaluate.

So we ask that Rick or Terri send the results of the study to this point to Jerry Fohey at the MISO. Also, I think providing the base cases to Jerry would be helpful. I believe he is using PTI's PSS/E powerflow package, but you can confirm this with him. His email address is jfohey@midwestiso.org and his telephone number is (317) 249-5759. We would like Jerry and possibly other representatives from the MISO participate in future discussions regarding this study, and to be involved in the review of results. While we are not indicating that the MISO will take over our role in this study, we do feel that MISO representatives should be actively involved.

Please let me know if there are any comments or concerns.

Darrin Adams Group Leader, Transmission Planning LG&E Energy (859) 367-1153 darrin.adams@lgeenergy.com From: "Chris Bradley" < cbradley@bigrivers.com>

To: "Terri L. Orloff" < tlorloff@cai-engr.com >

Subject: Light Load Case

Date sent: Thu, 2 May 2002 08:42:33 -0500

Terri,

If it is not too late, I would like to change the Big Rivers generation dispatch and net export on the light load case. I would like to remove a 47 MW purchase from SIGECO (Vectren) and add 50 MW export to TVA. The net interchange should be 150 MW (up from 53 MW).

Add the generation to the Reid 161 kV bus (27551).

Thank You,

Chris Bradley Senior Planning Engineer Big Rivers Electric Corporation Phone 270-827-2561 ext 2226

Signed IA generators in case:

Cinergy

- $G008 \rightarrow 250$ MW each modeled as areas 221 and 222.
- G009→Bus 90033 08VIGO 345 modeled as cut into 08DRESSR 345 and 05VIGO 345
- G010→Bus 31 03SCRK M 345 modeled between 08DRESSR 345 and 08CAY CT 345
- G015→Buses 90066 thru 90067 (08BED XX VV.V), along with all the 900xx buses that start with 08BED
- G064→Buses 90051, 90052, 90053 (NOB MP X 13.8) (X = 1, 2, or 3) plus branches to connect to 08NOBLSV 69

IPL

• G025→Check the number of machines at Stout, I'm pretty sure that's the one here.

LGEE

- G002,3,16,17,18,69 \rightarrow Machines 5-10 at 27013 11TRIMBL 345
- G004→ Withdrawn, don't worry about it
- G019→27338 11BUCKNR 345

SIPC

• G021,22→33389 1MRNG5 20

$\alpha\beta \chi\delta \ \ \text{Power}$

D		17.05.2002	Bombar						
С		13.03.2002	Bombar						
В		27.09. 01	Bombar						
Α		18.09.01	Bombar						
Rev	AM or DM	Date	Name	Visa	Name	Visa	Name	Visa	ı
	MODIFICAT	IONS	MODIF	FIED	CH	ECKED	APP	ROVED	
Ce document, propriété exclusive de ALSTOM est strictement confidentiel. Il ne peut être communiqué, copié, ou reproduit sans notre autorisation écrite.				être	strictly con	fidential. It	must not l	oe comr	municated,
Contract N°: Customer filing		Approved :	N.A.	N.A	١.				
		Checked:	10/07/01	A. TRE	MEL				
					Draw/Redr.	10/07/01	J. RE	EIS	
refere	ence name :	•			QA:	DATE	NAM	1E	VISA
THOROUGHBRED					GME 6 9	96 10 ²	1		
Title : IEEE TRANSFER DIAGRAM					Orgina	l No :N° <u>5</u>	4-652 132		
STATIC EXCITATION			Powe Electrical			Folios <u>1</u>	<u>/ 6</u>		



	SUIVI DES MODIFICATIONS / REVISION RECORDS					
REV	DATE	DESCRIPTION				
В	27.09.2001	Table for generator filled				
С	12.03.2002	Precalculated value according to the rating 828.36 MW changed				
D	17.05.2002	Generator rating has been changed therefore new Precalculated value				

CONTENTS

A.V.R TYPE STA1	3
PSS TYPE 2A	
PSS	. 4
QUESTIONNAIRE	6

For simulation use, Generator Voltage Ust, Voltage Reference and Field Voltage are defined in per unit values according to: IEEE TRANSACTIONS ON P.A.S., Vol. PAS-100, n°2, February 1981 A.V.R. Generator voltage is defined in relation to the rated voltage, Field values are defined in relation to the no load excitation sizes. Parameters are calculated in accordance with these per unit values and shown in small letters. In the A.V.R. itself they appear related to the physical values and shown in capital letters.

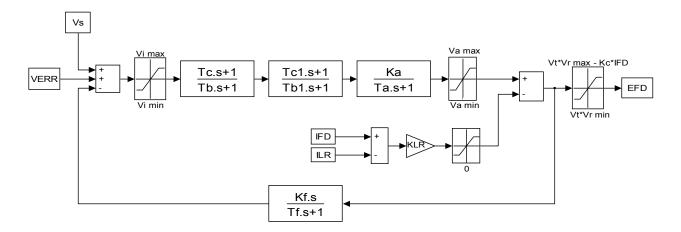


AUTOMATIC VOLTAGE REGULATOR

This diagram is drawn to fit with IEEE representation for simulation needs linked to the software used

This is deteriorated representation of the actual equipment.

IEEE Type ST1A

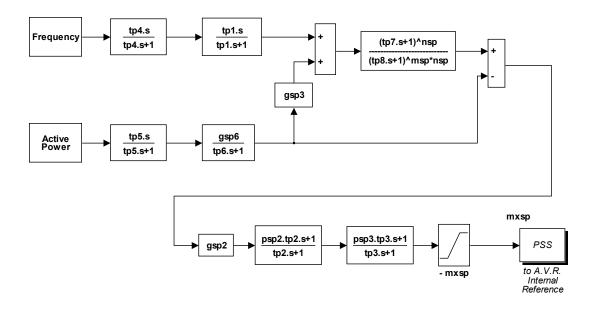


PARAMETERS	Precalculated VALUE
Vi max (pu)	0.18
Vi min (pu)	-0.18
Tc (s)	5
Tb (s)	167
Tc1 (s)	1
Tb1 (s)	1
Ka (pu)	1000
Ta (s)	0.01
Va max (pu)	7.26
Va min (pu)	-5.56
Vr max (pu)	7,26
Vr min (pu)	-5.56
Kc (pu)	0
Kf (pu)	0
Tf (s)	1
KLR (pu)	0
ILR (pu)	1

For simulation use, Generator Voltage Ust, Voltage Reference and Field Voltage are defined in per unit values according to : IEEE TRANSACTIONS ON P.A.S., Vol. PAS-100, n°2,February 1981 A.V.R. Generator voltage is defined in relation to the rated voltage, Field values are defined in relation to the no load excitation sizes. Parameters are calculated in accordance with these per unit values and shown in small letters. In the A.V.R. itself they appear related to the physical values and shown in capital letters.

$\alpha\beta\chi\delta$ Power

PSS₂A



POWER SYSTEM STABILISER acc. IEEE

PSS 2A				
Parameter	Value	Unit	Description	
Gsp3	0 100	pu	Power channel gain Speed channel wash-out time constant Power channel wash-out time constant Power channel gain Power channel time constant Ramp track filter numerator time constant Ramp track filter denominator time constant Ramp track filter parameter Ramp track filter parameter	
Tp4	1 50	s		
Tp5	1 50	s		
Gsp6	0 100	pu		
Tp6	0.01 50	s		
Tp8	0.1 10	s		
Tp9	0.1 10	s		
Msp	1 5	Integer		
Nsp	14	Integer		
Gsp2	0 300	pu	PSS Gain High pass filter time constant (Wash-out filter) Phase lead/lag filter high frequency gain Phase lead/lag filter time constant Phase lead/lag filter high frequency gain Phase lead/lag filter time constant Correction signal limitation	
Tp1	1 50	s		
Psp2	0 10			
Tp2	0.1 10	s		
Psp3	0 10			
Tp3	0.1 10	s		
Mxsp	0 0.2	pu		

For simulation use, Generator Voltage Ust, Voltage Reference and Field Voltage are defined in per unit values according to: IEEE TRANSACTIONS ON P.A.S., Vol. PAS-100, n°2,February 1981 A.V.R. Generator voltage is defined in relation to the rated voltage, Field values are defined in relation to the no load excitation sizes. Parameters are calculated in accordance with these per unit values and shown in small letters. In the A.V.R. itself they appear related to the physical values and shown in capital letters.



QUESTIONNAIRE PSS2A acc. IEEE 421.5 1992

These values must be known for the calculation:

Generator

	VALUE ALSTOM POWER	<u>UNIT</u>
X _d	1.97	p.u.
X _{as}	0.177	p.u.
T′ _{d0}	4.671	S
Τ΄ _d	0.637	S
f _n	60	Hz
H (generator only)	0.843	S
I	11470	kg * m²
GD ²	450082	kp * m²
Turbo or Salient Pole	Turbo	

Main transformer data:

	<u>VALUE</u> CUSTOMER	<u>UNIT</u>
S _{transfo}		MVA
u_k		%

• 3-pole subtransient short circuit power of the line:

	<u>VALUE</u> CUSTOMER	<u>UNIT</u>
S _k ´´min		GVA
S _k ´´max		GVA

For simulation use, Generator Voltage Ust, Voltage Reference and Field Voltage are defined in per unit values according to: IEEE TRANSACTIONS ON P.A.S., Vol. PAS-100, n°2,February 1981 A.V.R. Generator voltage is defined in relation to the rated voltage, Field values are defined in relation to the no load excitation sizes. Parameters are calculated in accordance with these per unit values and shown in small letters. In the A.V.R. itself they appear related to the physical values and shown in capital letters.

$\alpha\beta\chi\delta$ Power

• Adjustment of the AVR

	VALUE TO DETERMINE BY ALSTOM POWER OR BY CUSTOMER	<u>UNIT</u>
V_0		p.u.
V_p		p.u.
V_{∞}		p.u.
T _a		S
T _b		S

• Is the oscillation frequency known? (natural frequency of the system).

	<u>VALUE</u> CUSTOMER	<u>UNIT</u>
F _{nat}		Hz

If the value is not known, the measurement is done at the commissining of the PSS.

For simulation use, Generator Voltage Ust, Voltage Reference and Field Voltage are defined in per unit values according to: IEEE TRANSACTIONS ON P.A.S., Vol. PAS-100, n°2,February 1981 A.V.R. Generator voltage is defined in relation to the rated voltage, Field values are defined in relation to the no load excitation sizes. Parameters are calculated in accordance with these per unit values and shown in small letters. In the A.V.R. itself they appear related to the physical values and shown in capital letters.

5.4.4 Navigant Interconnection Study for proposed tie to TVA (March 4, 2002)

THOROUGHBRED ENERGY CAMPUS RESULTS OF PRELIMINARY POWERFLOW ANALYSIS AND PRELIMINARY COST ESTIMATES

1. Introduction

Thoroughbred Generating Company (Thoroughbred) is developing the 1,500 MW Thoroughbred Energy Campus (Project) which will consist of two 750 MW units and will be located in western Kentucky between the ECAR and SERC reliability regions. Thoroughbred proposes to interconnect one unit with Big Rivers Co-op's 345-kV system at the DB Wilson Generating Station and the other unit with TVA's 500-kV system near TVA's Paradise Generating Station. Thoroughbred has submitted interconnection requests to Big Rivers and TVA and work is progressing on the Big Rivers request. However, work on the TVA request will not likely start for a few months. Therefore, for financing purposes, Thoroughbred retained Navigant Consulting, Inc. (NCI) to undertake a generation interconnection analysis and to develop preliminary estimates of system upgrade costs identified during the interconnection analysis.

2. Powerflow Base Cases

The powerflow base cases used in these studies modeled 2005 summer peak load conditions and 2005 winter peak conditions and were acquired from the FERC Bulletin Board. Lists of the generating units in the TVA area modeled in these cases were prepared and compared to information on existing TVA area generators as obtained from TVA submittals to the Energy Information Agency (EIA). This step was undertaken to identify any new generators that might have been included in the base cases. The only such generation identified was the 600 MW Lagoon Creek peaking facility, which will be interconnected with the Weakley-Shelby 500-kV line in western Tennessee.

3. Identification of Potential New Generation

The first step in identifying other potential new generators in the western portions of Kentucky and Tennessee consisted of reviewing TVA's "interconnection request queue" as of October 4, 2001. Table A-1 summarizes the results of this review and presents information on:

- 1. The counties in which the potential generation resources would be located,
- 2. Each proposed generator's location with respect to a city/town, and
- 3. The TVA 500-kV facilities in the proximity of each.

The "proposed" new generation (based on the information provided in the queue) totals about 9,000 MW in western Kentucky and about 24,800 MW in western Tennessee. If known/apparent duplications are removed and it is assumed that only the largest project in each county will be developed, the totals drop to 5,500 MW in western Kentucky and 13,600 MW in western Tennessee. If only those units ahead of the Thoroughbred Project in the TVA queue are considered, the total potential generation in western Kentucky drops to about 6,900 MW while that in western Tennessee drops to about 6,700 MW.

This information was reviewed with Thoroughbred and combined with information prepared by Thoroughbred. As a result, the following "pre-Thoroughbred Project" generating facilities (with a combined capacity of 3,072 MW) were identified:

- 1. A 640 MW project interconnected with the Marshall 500-kV Substation located southeast of Paducah,
- 2. An 800 MW project interconnected with the Montgomery 500-kV Substation located northwest of Nashville,
- 3. Dynegy's 832 MW Oldham County project interconnected with the Middletown Substation located east of Louisville.
- 4. An 800 MW project interconnected with the Cordova-Johnsonville line.

4. Scenarios Evaluated

During these studies NCI identified estimated normal and contingency power flows on the transmission system in the Project area for the following scenarios with both summer and winter load conditions.

Scenario 1

The Scenario 1 cases are based on the seasonal power flow base cases as obtained from the FERC Bulletin Board (refer to Section 2).

Scenario 2

The Scenario 2 cases are pre-Thoroughbred Project cases based on Scenario 1 and including the 3,072 MW of new generation discussed in Section 3.

Scenario 3

These are post-Thoroughbred Project cases based on Scenario 2 with a 750 MW Thoroughbred unit interconnected to the Big River's 345-kV system at DB Wilson via an 8-mile long 345-kV line. Based on information from Thoroughbred the cases also included the following system reinforcements:

1. A 20-mile long, double circuit 161-kV line from DB Wilson to Paradise, and

2. A 345-kV switchyard tying the DB Wilson-Coleman and the Smith-Elizabeth lines together (referred in the studies to the "Coleman Wilson" substation)

In the process of developing the powerflow base cases for this Scenario, NCI noted that, when the Wilson-Coleman 345-kV line and the Smith-Elizabethtown line were tied together at the Coleman Wilson Substation, the resultant line from the interconnection point to Elizabethtown becomes overloaded. Upon review it was determined that:

- 1. This "overload" was likely due to the relatively low rating for the line (275 MVA), and
- 2. That the line's rating was apparently based on the rating of a 345/138-kV transformer at Smith (also rated at 275 MVA) which is in series with the line.
- 3. A more reasonable rating for the line between the Coleman Wilson Substation and Elizabethtown, based on the ratings of other 345-kV lines in the area, would be approximately 600 MVA. This higher rating was used in the analysis.

Scenario 4

These are the post-Thoroughbred Project cases based on Scenario 3 with a 750 MW Thoroughbred unit interconnected to TVA's Paradise-Montgomery 500-kV line.

5. Summary of Study Results

Table 1 summarizes the results of the powerflow studies conducted on the four Scenarios from the perspective of new overloads due to the addition of the Thoroughbred generation and overloads that are increased by the addition of such generation. Additional, detailed information is presented in Section 8 and in Tables A-2 and A-3. In developing Table 1 it was assumed that any loading above 100% of the rated capacity of a line or transformer would be considered an overload.

TABLE 1 SUMMARY OF STUDY RESULTS					
Maximum Loading (%) in Scenar			nario		
	1	2	3	4	
Studies of N-0 (Base Case) Conditions					
Johnsonville 500/161-kV transformer	103	<80	<80	<80	
Three LG&E 138-kV lines	113-143	144-182	114-144	112-141	
Studies of Single Contingency (N-1) Conditi	ons 1/				
"New' Overloads					
Wilson-Wilson Coleman 345-kV line	<80	<80	115	117	
Marshall-Mayfield 161-kV line	87	97	103	104	
Oak Place-Clarksville 161-kV line	51	74	83	103	
Interchange-Hurricane 161-kV line	94	99	100	104	

Pin Hook-Cane River 161-kV line	99	98	100	104
Smyrna-Black Mtn. 161-kV line	94	97	95	102
Increased Overloads				
Jackson 500/161-kV transformer	112	136	135	139
Cordova Haywood-Cordova 500-kV line	69	105	101	107
Bowling Green-Russelville 161-kV line	99	105	112	114
Chesterfield-Hustb T 161-kV line	97	101	103	105

Review of the information in Table 1 shows that addition of the Thoroughbred generation:

- 1. Does not adversely impact the TVA system under normal operating conditions (those with no unplanned outages on the system),
- 2. Could result in overloads on six transmission lines under single-contingency (N-1) outage conditions. Five of these overloads are less than 5% in magnitude.
- 3. Could cause slight increases in some overloads noted in Scenarios 1 and 2. These increases range from 1% to 9%.

6. Potential Mitigation Solutions

Table 2 summarizes potential solutions for mitigating the overloads noted in Table 1.

POTENTIAL MITIGATION S	TABLE SOLUTION	_	R NOTE	D OVER	LOADS	
	Est.	Max. l	Loading	(%) in Sc	enario	Potential
	Miles	1	2	3	4	Solution
"New' Overloads						
Wilson-Wilson Coleman 345-kV line	8	<80	<80	115	117	1.
Marshall-Mayfield 161-kV line	25	87	97	103	104	1.
Oak Place-Clarksville 161-kV line	13	51	74	83	103	1.
Interchange-Hurricane 161-kV line	6	94	99	100	104	1.
Pin Hook-Cane River 161-kV line	4	99	99	100	104	1.
Smyrna-Black Mtn. 161-kV line	9	94	97	95	102	1.
Increased Overloads						
Jackson 500/161-kV transformer		112	136	135	139	2.
Cordova Haywood-Cordova 500-kV line	40	69	105	101	107	2.
Bowling Green-Russelville 161-kV line	30	99	105	112	114	2.
Chesterfield-Hustb T 161-kV line	26	97	101	103	105	2.

Mitigation Solution 1

A potential solution to mitigating these overloads would be to increase the line ratings by replacing the limiting elements (switches, breakers, etc.) and/or re-sagging portions of the line to allow operation at a higher conductor temperature. Review of a system impact report prepared by TVA in 2000 indicates that, at least on the TVA system, such may be possible. Specifically, the TVA report notes that:

- 1. The ratings on two of TVA's 500-kV lines (the 16.6-mile long Browns Ferry-Limestone line and the 45.8-mile long Widows Creek-Madison line) are limited to 2,000 amps (1,732 MVA) by terminal equipment and line sag,
- 2. The ratings of both lines could be increased to 3,000 amps (2,598 MVA) by resagging portions of the line and replacing terminal equipment.
- 3. The estimated cost for the above effort would be \$6.6 million (equal to an average cost of approximately \$100,000 per mile).

Based on the above, the estimated cost for increasing the ratings of the six impacted lines (with a combined estimated length of 65 miles) is \$6.5 million.

Mitigation Solution 2

TVA and/or generators that come on line before the Thoroughbred generation should mitigate these overloads.

7. Preliminary Cost Estimate for Interconnection Facilities

The facilities required to interconnect the proposed 750 MW of generation with the TVA system include:

- 1. A 7 mile long 500-kV line from the plant site to the proposed interconnection point with TVA's Paradise-Montgomery 500-kV line,
- 2. A 50 mile long 500-kV line from the above interconnection point to the Montgomery Substation,
- 3. A 500-kV switchyard (in a four breaker ring bus configuration) at the proposed interconnection point, and
- 4. Two 500-kV circuit breakers at the Montgomery Substation (to provide a termination bay for the new 500-kV line).

The preliminary estimated costs (in 2002 dollars and exclusive of land costs) for the above facilities are summarized in Table 3. The estimate assumes rolling hilly terrain and accuracy of plus-or-minus 20%. A ring bus switchyard configuration was assumed as TVA has allowed this on other projects. The Thoroughbred Plant Switchyard is not included in this estimate.

TABLE 3 PRELIMINARY ESTIMATED INTERCONNECTION FA				
Faciltiy	Estimated Cost (\$1000)			
500-kV "tap" line	7,620			
500-kV line to Montgomery	54,450			
Interconnection switchyard	10,040			
Additions at Montgomery	4,960			
Total	\$77,070			

8. Detailed Discussion Regarding Study Results

Review of the information in Tables 1 and A-2 and A-3 shows that under normal (N-0) conditions the addition of the Thoroughbred generation does not adversely impact the TVA system. Specifically:

- 1. The addition of the 750 MW Thoroughbred generator tied to the BREC system (Scenario 3) does not result in any new overloads. In fact, it tends to mitigate or decrease overloads that occur after the addition of the Scenario 2 generation.
- 2. The addition of the 750 MW Thoroughbred generator tied to the TVA system (Scenario 4) does not result in any new overloads and tends to reduce the loadings in Scenario 3.

These studies also indicate that the addition of the first block of Thoroughbred generation (Scenario 3):

- 1. Results in two <u>new overloads</u> under single contingency (N-1) outage conditions. These are as follows:
 - a. Overloads of 13% (summer) and 15% (winter) on the 345-kV line between the Wilson and Coleman-Wilson substations as a result of an outage on the BREC Wilson-Green River 161-kV line. A 4% overload also occurs on this line in the winter studies as a result of an outage on the Phipps Bend-Volunteer 500-kV line.
 - b. An overload of 3% (summer) on the Marshall-Mayfield 161-kV line as a result of an outage on the Marshall-Benton 161-kV line.
- 2. Results in two <u>increased overloads</u> (above those in Scenario 2) under single contingency (N-1) outage conditions. These are as follows:
 - a. An overload of 12% (summer) on the Bowling Green-Russelville 161-kV line as a result of an outage on the Paradise-Bowling Green 161-kV line. This line is overloaded by 5% in Scenario 2.
 - b. An overload of 3% (summer) on the Chesterfield-Hustb T 161-kV line as a result of an outage on the Jackson 500/161-kV transformer. This line was overloaded by 1% in Scenario 2.

With respect to Scenario 4 (in which the second block of Thoroughbred generation is added), the studies indicate that under N-1 conditions:

- 1. Some new overloads (in addition to those in Scenario 3) could occur. These are as follows:
 - a. An overload of 4% (summer) on the Interchange-Hurricane 161-kV line as a result of an outage on the Pin Hook-Smyrna 161-kV line.
 - b. An overload of 3% (summer) on the Oak Place-Clarksville 161-kV line as a result of an outage on the Montgomery-Davidson 500-kV line.
 - c. An overload of 4% (summer) on the Pin Hook-Cane River 161-kV line as a result of an outage on the Montgomery-Davidson 500-kV line.
 - d. An overload of 2% (summer) on the Smyrna-Black Mtn. 161-kV line as a result of an outage on the Gallatin-Lacassas 161-kV line.
 - e. Overloads ranging from 1-2% (winter) on the 345-kV line between the Wilson and Coleman-Wilson substations as a result of five different outages.
- 2. Two of the new overloads on the 345-kV line between the Wilson and Coleman-Wilson substations noted in Scenario 3 would increase by 2-3%.
- 3. Results in four <u>increased overloads</u> (above those in Scenarios 2 and 3) under single contingency (N-1) outage conditions. These are as follows:
 - a. An overload of 7% (summer) on the Cordova-Haywood 500-kV line as a result of an outage on the Gleason-Weekley 500-kV line. This line was overloaded by 5% in Scenario 2.
 - b. An overload of 39% (summer) on the Jackson 500/161-kV transformer as a result of an outage on the Cordova-Haywood 500-kV line. This transformer was overloaded by 36% in Scenario 2 and by 5% in Scenario 3.
 - c. An overload of 14% (summer) on the Bowling Green-Russelville 161-kV line as a result of an outage on the Paradise-Bowling Green 161-kV line. This line is overloaded by 5% in Scenario 2 and 12% in Scenario 3.
 - c. An overload of 5% (summer) on the Chesterfield-Hustb T 161-kV line as a result of an outage on the Jackson 500/161-kV transformer. This line was overloaded by 1% in Scenario 2 and 3% in Scenario 3.

TABLE A-1 PROPOSED PROJECTS IN WESTERN KENTUCKY/WESTERN TENNESSEE THAT ARE AHEAD OF THOROUGHBRED IN THE TVA QUEUE

(Per TVA Queue of 10/4/01)

			Nearest	TVA		Application	Modeled
State	County	Location	TVA 500-kV	Queue	Application	Capacity	Capacity
			Sub/Line	Number	Date	(MW)	(MW)
Projects in Q	ueue Before Thor	oughbred Project					
Kentucky	Marshall	SW of Paducah	Marshall Sub	55	8/1/99	640	640
				133	11/20/00	640	640
	Logan	Russellville Area	Paradise-	106	6/6/00	800	800
			Montgomery Line				
	Warren	Bowling Green Area	None	119	9/11/00	320	
				120	9/11/00	320	
	McCracken	S of Paducah	Shawnee or	124	11/2/00	640	640
			Marshall Subs	125	11/2/00	340	340
				137	11/22/00	950	950
	Metcalfe	E of Glasgow	None	132	11/20/00	640	
	Muhlenberg	Greenville	Paradise Sub or	145	2/12/01	750	
		Area	Paradise-Montgomery	146	2/12/01	750	
			Line	152	3/13/01	1,500	750
					Subtotal	8,290	4,760
Tennessee	Haywood	Brownsville Area	Johnsonville-Cordova	81	2/24/00	800	800
			line				
	Hardin	Savannah Area	None	105	4/7/00	500	
				144	1/26/01	555	
	Weakley	Martin Area	Weakley Sub	116	8/6/00	555	555
	Gibson	Trenton Area	Weakley-Shelby Line	151	3/7/01	340	340
	Montgomery	So of Clarksville	Montgomery Sub	141	12/26/00	630	630
				143	1/23/01	532	532
	Humphreys	Waverley Area	Cumberland-Johnsonville	115	8/6/00	555	555
			line				
	Maury	Columbia Area	Maury Sub	147	2/15/01	800	800
					Subtotal	5,267	4,212
					Total	13,557	8,972

TABLE A-1 (Con't) PROPOSED PROJECTS IN WESTERN KENTUCKY/WESTERN TENNESSEE THAT ARE BEHIND THOROUGHBRED IN THE TVA QUEUE

(Per TVA Queue of 10/4/01)

			Nearest	TVA		Application	Modeled
State	County	Location	TVA 500-kV	Queue	Application	Capacity	Capacity
			Sub/Line	Number	Date	(MW)	(MW)
Kentucky	Monroe	SE of Glasgow	None	174	8/20/01	683	
Tennessee	Haywood		line	172	6/29/01	1,070	
	Madison	So of Jackson	Johnsonville-Cordova	178	8/30/01	683	
			line	179	8/30/01	752	
	Fayette	E of Memphis	Cordova Sub	170	6/22/01	640	
				171	6/22/01	640	
	Robertson	No. of Nashville	Montgomery-Wilson	4/4/01	600		
			Line	169	6/21/01	1,450	
	Cheatham	NW of Nashville	Davidson Sub or	113	8/6/00	555	
			Montgomery-Davidson	154	4/4/01	600	
			line	155	4/4/01	1,200	
	Davidson	NW of Nashville	11 11	166	6/8/01	1,100	
	Wilson	SE of Nashville	Wilson Sub	164	6/7/01	1,450	
	Maury			162	6/6/01	1,100	
				165	6/7/01	1,450	
				176	8/20/01	586	
				182	10/2/01	617	
				183	10/2/01	926	
	Hickman	Columbia Area	Maury-Browns Ferry	159	5/2/01	600	
			line				
					Total	16,702	

THOROUGHBRED PROJECT POWERFLOW STUDIES - SUMMARY OF RESULTS **TABLE A-2**

			:005 Summ	2005 Summer Scenarios	so		2005 Winter Scenarios	r Scenarios	,
		1	2	3	4	1	2	3	4
	Other New Generation, MW	0	3,072	3,072	3,072	0	3,072	3,072	3,072
	Thoroughbred Wilson Generation, MW	0	0	750	750	0	0	750	750
	Thoroughbred Paradise Generation, MW	0	0	0	750	0	0	0	750
	Overloaded Element(s)			%	% Loading (Normal Rating)	ormal Rati	ng)		
Base Case	Johnsonville 500/161 kV Xfmr 3	103	08>	08>	<80	69	08>	<80	<80
	Pond C-Tiptop 138 kV (LGEE)	81	110	84	81	143	182	144	141
	Knob C-Pond C 138 kV (LGEE)	81	110	84	81	143	182	144	141
	Knob C-Mill Creek 138 kV (LGEE)	98	115	89	86	113	144	114	112
Overloads Caused by Thoroughbred Generation	eneration								
Impacted Element	Crticial Outage(s)			% Fc	% Loading (Emergency Rating)	ergency Ra	ating)		
Paradise-Montgomery 500 kV Ckt 1	Paradise-Montgomery 500 kV Ckt 2				66				100
Paradise-Montgomery 500 kV Ckt 2	Paradise-Montgomery 500 kV Ckt 1				99	-			100
Wilson-Coleman Wilson 345 kV (Brec)	Paradise-Bowling Green 161 kV	<80	<80	97	66	<80	<80	98.7	101
	Wilson-Green River 161 kV (Brec)	52	53	113	116	<80	<80	115	117
	Phipps Bend-Volunteer 500 kV	33	30	66	101	<80	<80	104	107
	Paradise-N.Hardinsburg 161 kV			97	100	-		100	102
	Bull Run-Volunteer 500 kV			92	86	<80	<80	66	101
	Paradise-Aberd T 161 kV			97	66	<80	<80	66	101
	E Bowling Green-Aberd T 161 kV			97	66	<80	<80	66	101
Interch-Hurricane 161 kV	Pin Hook-Smyma 161 kV	94	66	100	104	<80	<80	<80	<80
Marshall-Mayfield 161 kV	Marshall-Benton 161 kV	87	97	103	104	<80	<80	<80	<80
Oak Pla-Clarksville 161 kV	Montgomery-Davidson 500 kV	51	74	83	103	<80	<80	<80	<80
Paradise-Russellville 161 kV	Paradise-Bowling Green 161 kV	85	86	100	66	<80	<80	<80	<80
Pin Hook-Cane Ri 161 kV	Davidson 500/161 kV Xfmr	66	98	100	104	<80	<80	<80	<80
Smyma-Black Mtn 161 kV	Gallatin-Lascassas 161 kV	94	97	92	102	<80	<80	<80	<80

THOROUGHBRED PROJECT POWERFLOW STUDIES - SUMMARY OF RESULTS **TABLE A-2**

		2	2005 Summer Scenarios	er Scenari	so		2005 Winte	2005 Winter Scenarios	s
		1	2	3	4	1	2	3	4
	Other New Generation, MW	0	3,072	3,072	3,072	0	3,072	3,072	3,072
	Thoroughbred Wilson Generation, MW	0	0	750	750	0	0	750	750
	Thoroughbred Paradise Generation, MW	0	0	0	750	0	0	0	750
Overloads Increased by Thoroughbred Generation	Generation								
Impacted Element	Crticial Outage(s)			% Pc	ading (Em	% Loading (Emergency Rating)	ating)		
Cordova Haywood-Cordova 500 kV	Shelby-Lag Crk 500 kV	69	105	101	105	<80	<80	<80	<80
	Gleason-Weakley 500 kV	99	101	101	107	<80	<80	<80	<80
	Jackson 500/161 kV Xfmr	63	100	66	104	<80	<80	<80	<80
Jackson 500/161 kV Xfmr	Cordova Haywood-Cordova 500 kV	112	136	105	139	<80	<80	<80	<80
	Haywood-Cordova Cordova 500 kV	112	108	135	109	<80	100	104	108
Bowling Green-Russellville 161 kV	Paradise-Bowling Green 161 kV	66	105	112	114	<80	<80	<80	<80
Chesterfield-Hustb T 161 kV	Jackson 500/161 kV Xfmr	97	101	103	105	<80	<80	<80	<80
Overloads Decreased by New Generation	on								
Impacted Element	Crticial Outage(s)			% Pc	ading (Em	% Loading (Emergency Rating)	ating)		
Bull Run-Volunteer 500 kV	Watts Bar-Volunteer 500 kV	<80	<80	<80	<80	108	107	101	101
Gallatin-Hartsville 161 kV	Wilstontn-Gallatin 161 kV	104	<100	54	<100	<80	<80	<80	<80
	Gallatin-Hoegant 161 kV	104	<100	29	<100	<80	<80	<80	<80
	Gallatin P-Hoegant 161 kV	104	<100	29	<100	<80	<80	<80	<80
Gallatin-Lascassas 161 kV	Wilstontn-Gallatin 161 kV	103	<100	72	<100	<80	<80	<80	<80
	Smyrna-Black Mtn 161 kV	103	<100	94	<100	<80	<80	<80	<80
	Murfreesboro-Black Mtn 161 kV	101	<100	92	<100	<80	<80	<80	<80
Johnsonville 500/161 kV Xfmr 3	Cordova Haywood-Cordova 500 kV	103	<80	<80	<80	<80	<80	<80	<80
	Franklin-Spring Creek 161 kV	103	<100	<50	<100	<80	<80	<80	<80
	Wilstontn-Gallatin-Hoegant 161 kV	103	<100	<50	<100	<80	<80	<80	<80
	Smyrna-Black Mtn 161 kV	103	<100	<50	<100	<80	<80	<80	<80
	Murfreesboro-Black Mtn 161 kV	103	<100	<50	<100	<80	<80	<80	<80
Johnsonville-Davidson 500 kV	Cumberland-Davidson 500 kV	92	<80	<80	99	103	88	85	<80

THOROUGHBRED PROJECT POWERFLOW STUDIES - SUMMARY OF POWERFLOW STUDIES **TABLE A-3**

		2	.005 Summ	2005 Summer Scenarios	SO		2005 Winter Scenarios	r Scenarios	
		1	2	3	4	1	2	3	4
	Other New Generation, MW	0	3,072	3,072	3,072	0	3,072	3,072	3,072
	Thoroughbred Wilson Generation, MW	0	0	750	750	0	0	750	750
	Thoroughbred Paradise Generation, MW	0	0	0	750	0	0	0	750
	Overloaded Element(s)			%	Loading (N	% Loading (Normal Rating)	Jg)		
Base Case	Johnsonville 500/161 kV Xfmr 3	103	<80	08>	08>	69	08>	08>	<80
	Pond C-Tiptop 138 kV (LGEE)	81	110	84	81	143	182	144	141
	Knob C-Pond C 138 kV (LGEE)	81	110	84	81	143	182	144	141
	Knob C-Mill Creek 138 kV (LGEE)	86	115	89	86	113	144	114	112
Outage	Impacted Element(s)			% Fc	ading (Em	% Loading (Emergency Rating)	ating)		
Cordova Haywood-Cordova 500 kV	Jackson 500/161 kV Xfmr	112	136	105	139	08>	<80	08>	<80
	Johnsonville 500/161 kV Xfmr 3	103	<80	<80	<80	<80	<80	<80	<80
Shelby-Lag Crk 500 kV	Cordova Haywood-Cordova 500 kV	69	105	101	105	<80	<80	<80	<80
Paradise-Bowling Green 161 kV	Bowling Green-Russellville 161 kV	66	105	112	114	<80	<80	<80	<80
	Paradise-Russellville 161 kV	85	86	100	66	<80	<80	<80	<80
	Wilson-Coleman Wilson 345 kV (Brec)	<80	<80	97	66	<80	<80	98.7	101.0
Jackson 500/161 kV Xfmr	Chesterfield-Hustb T 161 kV	97	101	103	105	<80	<80	<80	<80
	Cordova Haywood-Cordova 500 kV	63	100	66	104	<80	<80	<80	<80
Gleason-Weakley 500 kV	Cordova Haywood-Cordova 500 kV	99	101	101	107	<80	<80	<80	<80
Wilson-Green River 161 kV (Brec)	Wilson-Coleman Wilson 345 kV (Brec)	52	53	113	116	<80	<80	115	117
Cumberland-Davidson 500 kV	Johnsonville-Davidson 500 kV	92	<80	<80	99	103	89	85	<80
Watts Bar-Volunteer 500 kV	Bull Run-Volunteer 500 kV	<80	<80	<80	<80	108	107	101	101
Paradise-Montgomery 500 kV Ckt 1	Paradise-Montgomery 500 kV Ckt 2				66				100
Paradise-Montgomery 500 kV Ckt 2	Paradise-Montgomery 500 kV Ckt 1				66				100
Marshall-Benton 161 kV	Marshall-Mayfield 161 kV	87	97	103	104	<80	<80	<80	<80
Pin Hook-Smyrna 161 kV	Interch-Hurricane 161 kV	94	99	100	104	<80	<80	<80	<80
Davidson 500/161 kV Xfmr	Pin Hook-Cane Ri 161 kV	66	98	100	104	<80	<80	<80	<80
Montgomery-Davidson 500 kV	Oak Pla-Clarksville 161 kV	51	74	83	103	<80	<80	<80	<80

THOROUGHBRED PROJECT POWERFLOW STUDIES - SUMMARY OF POWERFLOW STUDIES **TABLE A-3**

			2005 Summer Scenarios	ier Scenari	so		2005 Winter Scenarios	r Scenario	· o
		1	2	3	4	1	2	3	4
	Other New Generation, MW	0	3,072	3,072	3,072	0	3,072	3,072	3,072
	Thoroughbred Wilson Generation, MW	0	0	750	750	0	0	750	750
	Thoroughbred Paradise Generation, MW	0	0	0	750	0	0	0	750
Outage	Impacted Element(s)			% Fc	% Loading (Emergency Rating)	ergency Ra	ating)		
Gallatin-Lascassas 161 kV	Smyrna-Black Mtn 161 kV	94	97	95	102	<80	<80	<80	<80
Phipps Bend-Volunteer 500 kV	Wilson-Coleman Wilson 345 kV (Brec)	33	30	99	101	<80	<80	104	107
Paradise-N.Hardinsburg 161 kV	Wilson-Coleman Wilson 345 kV (Brec)			97	100	l	!	100	102
Bull Run-Volunteer 500 kV	Wilson-Coleman Wilson 345 kV (Brec)			95	98	<80	<80	66	101
Paradise-Aberd T 161 kV	Wilson-Coleman Wilson 345 kV (Brec)			97	99	<80	<80	66	101
E Bowling Green-Aberd T 161 kV	Wilson-Coleman Wilson 345 kV (Brec)			97	99	<80	<80	66	101
8 Contingencies < 100.6 & > 99.9	Wilson-Coleman Wilson 345 kV (Brec)					-	-		
Haywood-Cordova Cordova 500 kV	Jackson 500/161 kV Xfmr	112	108	135	109	08>	100	104	108
	Johnsonville 500/161 kV Xfmr 3	103	24	6	6	<80	<80	<80	<80
Franklin-Spring Creek 161 kV	Maury-S.Colum 161 kV	107	107	107	107	<80	<80	<80	<80
	Johnsonville 500/161 kV Xfmr 3	103	<100	<50	<100	<80	<80	<80	<80
Wilstontn-Gallatin 161 kV	Gallatin-Hartsville 161 kV	104	<100	54	<100	<80	<80	<80	<80
	Johnsonville 500/161 kV Xfmr 3	103	<100	<50	<100	<80	<80	<80	<80
	Gallatin-Lascassas 161 kV	103	<100	72	<100	<80	<80	<80	<80
Gallatin-Hoegant 161 kV	Gallatin-Hartsville 161 kV	104	<100	67	<100	<80	<80	<80	<80
	Johnsonville 500/161 kV Xfmr 3	103	<100	<50	<100	<80	<80	<80	<80
Gallatin P-Hoegant 161 kV	Gallatin-Hartsville 161 kV	104	<100	67	<100	<80	<80	<80	<80
	Johnsonville 500/161 kV Xfmr 3	103	<100	<50	<100	<80	<80	<80	<80
Smyma-Black Mtn 161 kV	Johnsonville 500/161 kV Xfmr 3	103	<100	<50	<100	<80	<80	<80	<80
	Gallatin-Lascassas 161 kV	103	<100	94	<100	<80	<80	<80	<80
Murfreesboro-Black Mtn 161 kV	Johnsonville 500/161 kV Xfmr 3	103	<100	<50	<100	<80	<80	<80	<80
	Gallatin-Lascassas 161 kV	101	<100	92	<100	08>	<80	<80	<80

5.4.5 TVA Interconnection System Impact Study (July 9, 2002)



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

March 27, 2003

Mr. J. Scott Yaeger, P.E. Director, Transmission and Power Marketing Peabody Energy 701 Market Street St. Louis, Missouri 63101-1826

Dear Mr. Yaeger:

This responds to your request for TVA's analysis of Thoroughbred Generating Company, LLC's (TGC) projected effect on the electricity transmission system in Kentucky, as such analysis is required for your application to the Kentucky State Siting Board.

Enclosed is the final interconnection system impact study dated July 9, 2002, for the proposed interconnection of TGC's 750-MW coal-fired generating plant to Tennessee Valley Authority's (TVA's) 500-kV transmission system at TVA's Paradise Steam Plant in Muhlenburg County, Kentucky. Representatives of TGC and TVA discussed the findings of this study, and the underlying assumptions, at a meeting in Chattanooga, Tennessee, on June 19, 2002.

The interconnection system impact study evaluates the impacts of interconnecting the proposed generating plant to the TVA transmission system. This study does not address the ability of the TVA transmission system to transfer power from this facility to any specific load, either on TVA's system or off-system. Once transmission service is requested, TVA will have to perform a transmission system impact study pursuant to TVA's *Transmission Service Guidelines* in order to determine the capability of the transmission system to deliver power from the generator to the identified loads.

Please let us know if you have any questions or if we may be of further service.

Sincerely,

John Gardner

Interconnection Specialist Electric System Operations

Enclosure By Federal Express

Fstimated	Cost (k)	\$3,970		\$3,970	\$180,000	\$3,000	\$4,060 \$17,700	!	\$207,370	\$211,340
	Fix	Connect generation to Paradise 500-kV switchyard. Construct new bay and install new breaker for 3-position ring bus.	None	Total Direct Assignment Costs		Uprate to 3,000 Amps Uprate 795 ACSR to 100 Deg C (271 MVA) (14.4 mi.)		Construct new Paradise - Wilson 500-kV TL (90 mi.)	Total Network Upgrade Costs	Total Estimated Costs
Loading Loading	After	N/A	N/A		102.0%	102.6%	100.4% 10,117	N/A		
Loading	Before	¥ X	Z/A		57.4%	94.4%	94.7%	Α'N		
	Rating	K/X	N/A		1732	1/32 206	151 N/A	A/A		
	Voltage	N/A	Ν̈́Α		200	900 161	161 N/A	Ν̈́		
	Overload	NA	N/A		Paradise - Montgomery 500-kV TL	Paradise - Montgomery 500-kV 1L Gallatin - Hartsville 161-kV TL	Wilson - Gladeville 161-kV TL Reactive Loss Increase (MVAR)	1780 MW units going unstable (Cascading)		
questers	Contingency	N/A	No Overstressed Breakers		All ties closed	Faradise - vviison pou-kv 1L E Gallatin - Fountain Head 161-kV	Gallatin - Lebanon IP 161-kV TL N/A	Montgomery - Wilson 500-kV, Montgomery - Davidson 500-kV		
With or Without Prior Requesters	Cost Category Season	Direct Assignment <u>Interconnection</u> Both	Eault Study Both	Network Upgrades	<u>Loadflow</u> Both	Both Summer	Summer Winter	Transient Stability Both		

Interconnection System Impact Study Report

Peabody - Paradise 500-KV
Project ID: R0609 ISIS Work Order #: 61198
Output: 750 MW Requested ISD: 07/01/2004

FINAL 07/09/2002 Tracking #145

Important Notes

IMPORTANT NOTES REGARDING THIS INTERCONNECTION SYSTEM IMPACT STUDY

This study was based on information provided to TVA by the IPP. This study was based on the interconnection arrangement shown on the attached diagram. Any changes to the interconnection arrangement could result in the need for a new study and/or a change in the estimated costs. All costs presented in this report are estimates. IPP to pay actual costs.

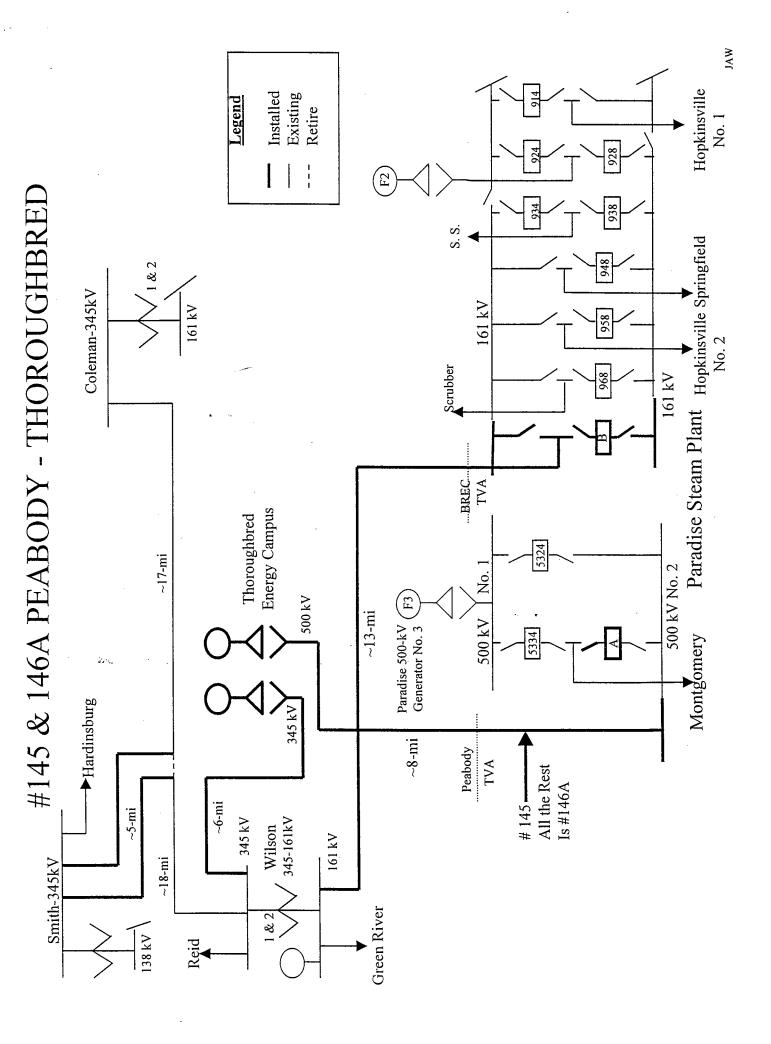
IMPORTANT NOTES REGARDING REACTIVE LOSSES

TVA's Interconnection System Impact Study (ISIS) evaluates only the impacts of interconnecting new generation to the TVA transmission system and dose not address the ability of the TVA transmission system to transfer power or energy from the facility to any specific load, either on the TVA system or off the TVA system. In the ISIS reactive loss analysis, we assume that the new generation is dispatched in essentially equal amounts to TVA's interfaces with neighboring electric utility systems. TVA then identifies incremental increases in reactive losses (i.e., the difference in reactive losses with the new generation operating vs. without the new generation operating) and recommend that the new generation pay for the installation of reactive-producing devices (e.g., capacitors, static var compensators) at the time of interconnection. The cost of these devices is considered a Network Upgrade and eligible for credits against charges for transmission service.

TVA strongly recommends that the new generation invest in reactive-producing devices at the time of interconnection. TVA submits that doing so will increase the likelihood that facility output may be moved across the TVA transmission system. Nevertheless, TVA no longer requires this investment as a condition of interconnection, instead, investment at the time of interconnection is optional. Alternatively, this investment may be deferred until a specific point of receipt is identified for delivery of power from the new generation. Once transmission service is requested, however, TVA will perform a transmission system impact study pursuant to TVA's Transmission Service Guidelines in order to determine the capability of the transmission system to deliver power from the generator to the identified loads. Any necessary transmission system upgrades identified by such studies must then be completed prior to TVA's approval of the transmission service request. Since TVA's studies are regularly identifying a need for reactive-producing devices when modeling merchant plants dispatched in virtually any direction across the TVA system, and due to the amount of time required to conduct impact and facilities studies and to actually install the upgrades, we believe that making this investment at the time of interconnection should help improve the ultimate dispatchability of the facility in a more timely manner.

IMPORTANT NOTES REGARDING TRANSMISSION SERVICE

Because this is only a study to interconnect the facility and not a transmission service request, TVA has studied only the impacts of the actual interconnection. This interconnect the facility and not a transmission service requested, TVA will have to perform a transmission system impact study pursuant to TVA's system or off-system. Once transmission service is requested, TVA will have to perform a transmission system impact study pursuant to TVA's system or off-system or o earliest opportunity so that the studies may be completed in a timely manner.



5.4.6 MISO Transmission Expansion Plan 2003 Executive Summary





MTEP-03



Midwest ISO Transmission Expansion Plan 2003

Approved by the Midwest ISO Board of Directors June 19, 2003

Table of Contents

Section 1:	Executive Summary	
	1.1 Objectives of the MISO Plan	6
	1.2 The MISO Planning Process	6
	1.3 Reliability-Based Versus Commercially Beneficial Projects	7
	1.4 Key Findings	
	Summary	8
	Transmission Owner Plans	
	Major Planned Projects	12
	Overall System Reliability	
	Solutions to Constrained Facilities	
	Projects of Commercial Interest	
	Drivers for Generation and Transmission Concepts	
	The Effect of Fuel Price Changes	
	Most Effective Transmission Concepts	
	1.5 Continuing Plan Development	
	2 · · · · · · · · · · · · · · · · · · ·	
Section 2:	Overview of MTEP-03	28
Section 3:	Expansion Planning Objectives and Process	29
000000000000000000000000000000000000000	3.1 Objectives	
	3.2 Process Overview	
	3.3 Process Steps	
	Roll-up of Transmission Owner Plans	
	Development of Power Flow Base Case	
	Reliability Review of the Planned System	
	Review of Existing System Constraints	
	Selection of Future Scenarios for Study	
	3.4 Implementation and Follow-Up	
	0.4 Implementation and Follow Op	
Section 4:	About MISO - Scope/Systems/Statistics	34
Occion 4.	4.1 Scope of the MISO System	
	4.2 Planning Regions	
	4.3 Existing Load and Generation	
	4.4 Load and Generation Trends	
	Fuel Mix of Queued New Generation Interconnections	
	Northwest	
	Central	
	East	
	Southwest	
	Journ West	42
Section 5:	The MISO Generation Development Queue	43
Section 5.	The MISO Generation Development Quede	
Section 6:	The MISO Transmission System – Constraints and Plans	ΛE
Section 6.		
	6.1 System Bottlenecks	
	6.1.1 History of TLR Curtailments	
	6.1.2 Constrained Flowgates in the Planned System	
	6.2 Summary of Local System Plans	
	6.3.1.1 Planning in the Northwest Region	00

(continued)

TABLE OF CONTENTS, continued

Content					Page
			6.3.1.2	Major Projects in Northwest Region	66
				Major Projects in Northwest Region	
				Manitoba Hydro	
				Otter Tail Power Company	
				Xcel Energy (XEL)	
		6.3.2		Region	
		0.0.2	6.3.2.1	Planning in Central Region	
			6.3.2.2	Major Projects in the Central Region	
				Southern Illinois Power Cooperative	
				American Transmission Company	
		6.3.3		gion	
			6.3.3.1	Planning in East Region	
			6.3.3.2	Major Projects in the East Region	
			,	Vectren	
				Cinergy	129
				Hoosier Energy REC, Inc	132
				Michigan Electric Transmission Company, LLC	133
				Louisville Gas & Electric Energy	134
				Northern Indiana Public Service Company	135
Castian 7.	DTO	Doodi	Cta	n Daliahilitu Aaaaananta	427
Section 7:	KIU	Daseii	ne Systen	n Reliability Assessments	137
Section 8:	Scer			Analyses	
	8.1			nalyses	
		8.1.1		sh	
		8.1.2		umptions Applied in Analyses	
		8.1.3		inties Affecting Congestion Costs and Other Results	
		8.1.4		S Application	
	0.0	8.1.5		nformation Provided	
	8.2			ongestion Analyses	
		8.2.1		ta	
	0.2	8.2.2		enerator Data	
	8.3	8.3.1		Transmission Scenarios Analyzed - Descriptionive Generation Development Scenarios	
		8.3.2		ive Transmission Configurations	
		0.5.2		ansmission Configuration	
				tory Transmission Configurations	
				#1 Rockport-Paradise 765 kV and TVA 500 kV (\$294 M)	
				#2 Rockport – Paradise 765 kV and S. IL and MS 345 kV	
				(\$844 M)	151
			:	#3 Iowa and S. Minn. 345 kV and Dakotas 500 kV (\$661 M)	
				#4 N.W. 345 kV Expansion and Dakotas 500 kV (\$1,893 M)	
				#5 S. IL and S. IN Mo. 765 kV and 345 kV (\$1,736 M)	
				#6 System-Wide 345 kV (\$2,335 M)	
				#7 MAPP- SPP 500 kV Overlay (\$5,705 M)	
				#8 Michigan 765 kV (\$948 M)	
				,	

(continued)

TABLE OF CONTENTS, continued

Content			Page
	0.4		400
	8.4	Detailed Study Results	
		8.4.1 Base Transmission Plan – Economic Performance	
		Base Generation Scenario	
		Marginal Cost for Base Generation Scenario	
		Congestion Related Costs for Base Generation Scenario Spot Price Differences and Indications	
		Historically Limiting Constraints in the Base 2007 Simulation	
		Value in Relief of Top Remaining Historical TLR Constraints	
		Top Bottlenecks Identified in 2007 Base Case Simulation	
		Value in Relief of Top Six 2007 Constraints	
		Value in Relief of Top 2007 MISO Constraints in East Region	
		Other Top 2007 MISO Constraints	
		Selected Line Flows in the 2007 Simulation	
		High Gas Generation Development Scenario	
		Marginal Costs for High Gas Scenario – Base Transmission	
		Displaced Existing Units in the Simulation	
		Preferred Locations for New Gas Units	
		Congestion Related Costs - High Gas Scenario	195
		Transmission Constraints Indicated in the High Gas Scenario	196
		Balanced (More Coal) Generation Development Scenario	197
		Marginal Costs for Balanced (More Coal) Scenario – Base	
		Transmission	
		Unit Performance for Balanced Case – Base Transmission	200
		Congestion Related Costs for High Coal Scenario – Base	000
		Transmission	
		Transmission Constraints Indicated in the Balanced Scenario	
		High Wind Generation Development Scenario	
		Marginal Costs for High Wind Scenario – Base Transmission	209
		Congestion Related Costs for High Wind Scenario – Base Transmission	210
		Transmission Constraints Indicated in the High Wind Scenario	
		Unit Performance for High Wind – Base Transmission	
		8.4.2 Exploratory Transmission Configurations	
		Southern IL, IN, Eastern MO and Western KY	
		# 1 Rockport – Paradise 765 kV and TVA 500 kV	
		# 2 Rockport-Paradise 765 kV and S. IL and Missouri 345 kV	
		# 5 S. IL and S. IN, MO 765 kV and 345 kV	
		Effect of the New Transmission on Binding Constraints	
		Generator Capacity Factors Comparison	
		Marginal Cost Comparison	226
		Loading of the Rockport – Paradise 765 kV Line	228
		Northwest Area Exploratory Plans	
		#3 Iowa and S. Minn. 345 kV and Dakotas 500 kV	
		#4 Northwest 345 kV Expansion and Dakotas 500 kV	233
		Effect of New Transmission on Binding Constraints in the Base	
		Transmission Case	
		Congestion Related Costs	
		Generation Dispatch Considerations	
		Marginal Energy Cost Effects	
		(cor	ntinued)

TABLE OF CONTENTS, continued

Content		Page
	SPP 345 kV Expansion	242
	High Voltage Overlay 500 kV, 765 kV and Other Plans Considered	
	High Voltage Overlay	
	SPP Portion of High Voltage Overlay Expansions	249
	MAIN-ECAR Portion of High Voltage Overlay Expansions	249
	System-Wide 345 kV Expansions	250
8.5	Summary of Study Results	250
Appendix A:	Forms and Map	253
Appendix B:	Generation Allocation for Generation Scenarios	255
Section B1:	The Combined Generation Queue List	255
Section B2:	High Gas Scenario	255
Section B3:	High Coal Scenario	258
Section B4:	High Wind Generation Scenario	260
Section B5:	High Gas Scenario Generator Allocation and Location	260
Section B6:	Wind Generation in High Gas Scenarios	276
Section B7:	Wind Generation for the High Wind Scenario	292
Appendix C:	Acronym Listing	299
Appendix D:	MISO Website Information	302
Appendix E:	Shadow Prices Base Generation Scenario, Base Transmission Configurat	ion . 303
Appendix F:	Line Listings for Exploratory Transmission Configurations	317
Appendix G:	Base Case Power Flow Creation	338

Section 1: Executive Summary

1.1 Objectives of the MISO Plan

The Midwest ISO Transmission system spans 15 states, and 1.2 million square miles from the Dakotas to Kentucky. This large area encompasses an emerging electric market with diverse generation resources and over 100,000 miles of transmission. As part of ongoing responsibilities delineated in Appendix B to the *Agreement Of Transmission Facilities Owners To Organize The Midwest Independent Transmission System* (TOA) the Midwest ISO develops a Transmission Expansion Plan designed to ensure the reliability of the Transmission System that is under the operational and planning control of the Midwest ISO. Additionally, the plan is to identify expansion that is critically needed to support the competitive supply of electric power by this system. The Plan is to consider all market perspectives, including demand-side options, generation location, and transmission expansion.

These requirements are consistent with those set forth in FERC Order 2000 for RTO regional planning. Order 2000 requires among other things, that the RTO must have ultimate responsibility for both transmission planning and expansion within its region that will enable it to provide efficient, reliable and non-discriminatory service and coordinate such efforts with the appropriate state authorities. Order 2000 also recognizes the statutory authority of the states to regulate siting of transmission facilities. As such, the RTO planning and expansion process must be designed to be consistent with these state and local responsibilities. RTOs must accommodate efforts by state regulatory commissions to create multi-state agreements to review and approve new transmission facilities. To that end, the information in this MTEP-03 is provided for use by state authorities as well as market participants in determining expansions that are necessary for reliability purposes and additional expansions that may provide opportunities to reduce consumer energy costs. Through continuing discussions with state regulatory and siting authorities, MISO hopes to provide planning information valuable to states in determining which regional transmission expansion opportunities should be developed, and how the costs of those facilities should be recovered.

1.2 The MISO Planning Process

This is the first Midwest Independent Transmission System Operator (MISO) Transmission Expansion Plan (MTEP). This initial plan covers the period 2002 through 2007. This issue of the plan is referred to as the MTEP-03 in reference to the year of issue. MISO planning staff developed the MTEP-03 with input from stakeholders through multiple forums at MISO. These forums included the Planning Advisory Committee, Planning Support Group, Expansion Plan Group, and the Advisory Committee. These groups drove the scope and structure of the expansion plan effort, and assisted by providing guidance, data, information, plans, assessments, and reviews and critiques of the MTEP-03 report.

The expansion planning process at the Midwest ISO is an evolving process that integrates the planning activities of providing for ongoing load growth, interconnecting new generation and

SECTION 1: EXECUTIVE SUMMARY

transmission, and providing transmission service. These planning activities are performed collaboratively between the Midwest ISO planning staff and the planning staffs of the Transmission Owners, including Independent Transmission Companies (ITCs), with regular input from stakeholder groups.

The regional planning perspective of the MISO relies on the continued local planning responsibilities of the Transmission Owners and ITCs to ensure reliability of their systems. These local system plans are reported to MISO and integrated. These plans include plans developed solely by the Transmission Owners and ITCs to meet load growth, as well as plans resulting from MISO responses to requests for transmission delivery and interconnection service. The MISO is responsible for evaluating these integrated plans for their ability to meet the obligations of the MISO to ensure reliability in an efficient manner, and to identify the ability of these plans to meet the projected demands of the energy market in the Midwest.

Coordination with entities at MISO seams continues to evolve. MTEP-03 was developed with cooperative input from adjacent systems such as WAPA, AEP, TVA, and others. These entities participated in updating system models, and attended support and advisory group meetings in the development process. SPP staff assisted in the development of the plan during most of 2002 while the MISO-SPP merger proposal was in place. However, the merger was terminated prior to the completion of the report, and the report is not intended to represent the opinions of, nor in any way be considered a product of the SPP staff or regional membership. MISO and PJM have developed a planning coordination protocol that provides for close coordination of data, models, studies, and development of regional expansion plans going forward. We anticipate that this protocol will begin to be implemented during 2003.

1.3 Reliability-Based Versus Commercially Beneficial Projects

MTEP-03 consists of both a "plan" to ensure the ongoing reliability of the MISO Transmission System, and an "analysis" of issues impacting the development of commercially beneficial expansions. Not all potential transmission expansions evaluated in this MTEP are required in order to maintain reliability standards. Certain transmission system expansions are needed to provide for transmission system performance within applicable reliability standards while meeting the ongoing service obligations to existing transmission customers. Such projects are considered required reliability projects, and are identified in the tables in Appendix A. **Projects in Appendix A that are designated as Planned projects are recommended by the MISO to be completed by the service dates identified**. Other projects listed in Appendix A are designated as **Proposed** projects. Proposed projects are tentative solutions to identified needs, and require additional planning before they are endorsed by the Transmission Owners or the MISO as the preferred solution. Section 6 of this report focuses on the plans for expansion of the MISO system that have been developed by the MISO Transmission Owners.

Other transmission system expansions discussed in Section 8 of this report are under consideration as representative projects with potential benefit in relieving congestion potentially reducing cost of electricity to consumers. They are not at this time considered necessary to maintain basic reliability of the system. It is the expectation of the MISO that projects of this type will be of interest to market participants and to regulatory authorities. The MISO will

SECTION 1: EXECUTIVE SUMMARY

continue to evaluate these and other projects with possible commercial benefits, and will work with stakeholders including regulatory authorities in defining the value of such projects. It is the intent of the MISO to demonstrate the beneficiaries of such projects where possible in order to assist in the determination of equitable cost recovery for such projects in the event it is determined that such projects should proceed.

In this initial analysis, the impact on LMP and associated wholesale marginal energy costs of various generation and transmission development scenarios were compared as a measure of consumer benefits. While this approach reflects costs savings that may be available to consumers and enables comparisons between scenarios, it is not entirely representative of consumer benefits that may result. Many factors are involved in determining true consumer costs, such as:

- Whether the generation component of consumer prices in an area is set by cost-of-service based regulation, or by market clearing prices;
- To what extent load serving entities make economic wholesale purchases and sales, and how the costs of those transactions are passed through to consumers; and
- The relative costs of capital investment in transmission and generation between scenarios.

These and other economic and policy considerations need further vetting before opportunities identified in this report can be determined to be in the best interest of consumers.

1.4 Key Findings

Summary

This initial expansion planning effort of the MISO has resulted in the following key findings:

- □ The combined plans of the Transmission Owners result in an estimated \$1.84 billion in new transmission investment either Planned or Proposed over the five-year period through 2007.
- □ About \$1.32 billion of these projects are considered Planned, which means the Transmission Owners believe these plans should proceed. The remaining Proposed projects address known reliability issues, but continue to be evaluated.
- □ The majority of the line additions in these plans represent improvements to existing facilities in the 161 kV class and below.
- □ About 3% of the more than 100,000 miles of transmission in the MISO is planned for additions or enhancements.
- □ 19 constrained facilities in the MISO footprint account for 80% of the NERC Transmission Loading Relief (TLR) called on MISO facilities to relieve congestion.
- □ 12 of these 19 most problematic flowgates are being addressed by plans in the MTEP.

SECTION 1: EXECUTIVE SUMMARY

- □ Locational Marginal Price (LMP) analysis indicates that new generation development that contains a higher percentage of coal and renewable resources than reflected in the existing queues could result in lower marginal costs of wholesale energy.
- Many of the potential sites for new coal and wind development are in congested areas of the system, and transmission expansion in these areas could result in improved delivery of the most efficient existing and new resources.
- Reductions in marginal costs of wholesale energy appear sufficient in several scenarios to offset capital costs for development of new low marginal cost resources and transmission to accommodate delivery of these resources.
- □ Initial investigation of potentially commercially beneficial transmission indicated that between \$304 million and \$1.6 billion in reduced annual marginal cost of wholesale energy could result from addition of transmission together with higher amounts of wind and coal, depending on natural gas price projections.
- □ Volatility of natural gas prices can significantly affect the value of transmission additions.

Transmission Owner Plans

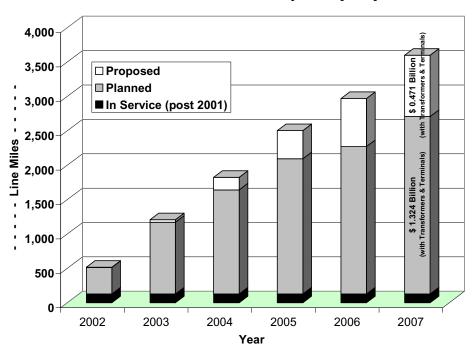
A list of MISO-recommended transmission projects that are considered <u>Planned</u> or <u>Proposed</u> are in Appendix A along with an expansion-planning map. Planned projects are those for which a system condition has been found to violate applicable planning standards, and the Planned project has been determined to be the recommended project from among alternatives. Planned projects may be in various stages of corporate internal and external approval processes.

Proposed projects are those for which a system condition has been found to violate applicable planning standards, and the proposed project is the best-known alternative at this time.

Proposed projects will continue to be evaluated and, unless system conditions change from projected, the Proposed project will either become a Planned project, or will be replaced by a preferred alternative Planned project in subsequent issues of the MTEP. The total estimated direct cost of the Planned and Proposed facilities is **\$1.8 billion** for the six-year period 2002-2007. Of these recommended projects, \$1,324 million are considered Planned, and \$471 million are considered Proposed and will continue to be reviewed.

SECTION 1: EXECUTIVE SUMMARY

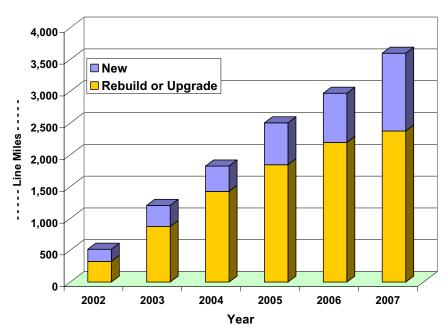
Cumulative MTEP Line Additions by Status [Miles]



SECTION 1: EXECUTIVE SUMMARY

In total, there are 3,500 miles of transmission lines planned for new construction or enhancement by the MISO Transmission Owners by 2007. This includes lines that went in service in 2002, as well as lines Planned or Proposed through 2007. About 1,200 miles of the 3,500 miles represent an increase as new corridor usage for the five-year planning horizon. For reference, there are approximately 112,000 miles of existing transmission lines throughout the MISO area.

Cumulative Line Additions by Corridor Impact Type [Miles]



SECTION 1: EXECUTIVE SUMMARY

Of the planned and proposed transmission, the majority is in the 161 kV voltage class and below, and most represent enhancements to existing facilities as opposed to construction involving new corridors.

4,000 □ 115 kV 3,500 □ 138 kV ■ 161 kV 3,000 ■230 kV - - Line Miles - - -2,500 ■345 kV 2,000 1,500 1,000 500 2002 2003 2004 2005 2006 2007 Year

Cumulative MTEP Line Additions by Voltage [Miles]

Major Planned Projects

Following are the Planned projects by MISO member systems for the 2002-2007 planning horizon that have estimated costs of \$15 Million or more. These projects account for \$1,022 million, or about 78% of the total cost of all planned projects for the five-year period. Section 6 of this report contains descriptions of these and other major projects. Appendix A contains a listing of all Planned and Proposed projects.

SECTION 1: EXECUTIVE SUMMARY

Note: The underlined links shown in the Project column below connect to more detailed information about each project.

Planned Projects Over \$15 Million

		Planning	Map Grid		Service	Est. Cost
Project	Description	Region	Loc	Driver	Date	(\$M)
	220 miles of 345 kV line, Northpoint-Weston 24 Miles 115 kV, 345/230 kV tr at Arrowhead, PAR at Arrowhead, two 345/115 kV tr at Weston	Central	I4-J6	Load	2006- 2007	\$397.1
	(Southwest Minnesota) 825 MW of Generation Outlet; Lakefield-Nobles-Split Rock 94 miles of 345 kV, 345/115 kV tr at Nobles, 34 miles of 161 kV, and 26 miles new/15 miles rebuild of 115 kV	Northwest	G4-G6	Generation	2005	\$105.1
Buffalo Ridge	(Southwest Minnesota) 425 MW of Generation Outlet, 21 projects including 260 miles of 115 kV rebuild, 36 miles 115 kV new, and 230-115 kV tr at Black Dog and Minnesota Valley.	Northwest	G4-G6	Generation	2004	\$83.2
Harvey-Glenboro <u>US Portion</u> <u>Canadian Portion</u>	158 Miles of 230 kV, and Rugby 230-115 kV tr	Northwest	E3	40% Load, 10% Gen, 50% Tr. Ser	2002	\$69.9
	4.5 new/ 20.6 rebuild miles of 161 kV, 16 miles of 115 kV rebuild, and two 161-115 kV tr at Lawrence Crk	Northwest	I5	Load	2005	\$64.3
	345 kV 4 miles new & 36 rebuild, Brookdale 345-138 kV tr	Central	L7	Generation	2007	\$51.4
Venus-Crandon- Laona-Goodman- Plains	73 Miles of 138 kV and Venus 138/115 kV tr	Central	K5	75% Load, 25% other	2005	\$43.0
Rosser-Silver	65 Miles 230 kV	Northwest	F2	Load	2005	\$33.9
Northern AC Transmission System Requirements	230-138 kV tr at Kelsey Station, new 150 MVAR Static Var Compensator at Ponton Station	Northwest	Manitoba	Load	2003	\$29.7
Callaway-Franks	345 kV, 54 miles	Central	I10	Load	2005	\$27.3

(continued)

SECTION 1: EXECUTIVE SUMMARY

Project	Description	Planning Region	Map Grid Loc	Driver	Service Date	Est. Cost (\$M)
Oak Creek- Bluemound	24 miles of 230 kV converted to 345 kV, and Bluemound 345/138 kV tr	Central	K7-L7	Generation	2007	\$23.8
Jefferson City Area Development	15 miles of 345 kV, 15 miles of 161 kV and 345/161 kV tr at Jefferson	Central	I11	Load	2006	\$22.7
Reedsburg Area	69 kV Loop, 34 miles converted to 138 kV and One mile of new 138 kV	Central	J7-K7	75% Load, 25% other	2005	\$20.1
Lannon Junction	345-138 kV Substation	Central	K7-L7	60% Load 40% Other	2005	\$18.0
Rush Island-St. Francois	Second 345 kV, 17 miles	Central	J10	Load	2003	\$16.5
Forest Junction	Two 345-138 kV tr's and rebuild sections of 138 kV line.	Central	K6	25% Load 75% Other	2003	\$15.7

SECTION 1: EXECUTIVE SUMMARY

Overall System Reliability

The Transmission Owners of the MISO have responsibility to plan their local systems to meet applicable reliability standards. These standards include those of NERC, the NERC Regional Councils, and local system standards. The roll-up of local area plans represent the results of a great many system studies performed both independently and collaboratively with the MISO to ensure the ongoing reliability of the MISO system. These studies occur in the context of ongoing transmission service and generator interconnection requests, and through reliability assessments performed by the Transmission Owners in compliance with NERC reliability standards. In addition, the MISO performed a single contingency evaluation of the performance of the combined plans, and found the planned system to be within thermal performance limits through the 2007 period. In subsequent issues of the MTEP, MISO will report on additional more comprehensive reliability studies to be performed by MISO in collaboration with the Transmission Owners.

Solutions to Constrained Facilities

NERC has developed Transmission Loading Relief (TLR) procedures to manage system security in times of congestion. There are nine levels of TLR. Level 3a and above involve curtailment of transactions. Level 6 is the highest level emergency action.

TLR was called on 110 MISO flowgates during the 24-month period from January 1, 2001, through December 31, 2002. Over this period, 19 MISO flowgates accounted for 80% of flowgate hours in TLR. Of these 19 most problematic flowgates, 12 are addressed by Planned or Proposed transmission projects within the five year planning horizon. Nine of these flowgates are addressed by projects to be in service by 2004. MISO continues to evaluate the remaining flowgates with the highest incidence of TLR to determine the value in relieving these constraints.

Projects of Commercial Interest

MTEP-03 also provides analyses intended to identify transmission expansions that the MISO believes could be commercially beneficial. Commercial benefits are potentially derived from access by loads to additional fuel supplies, changes in total generation production costs, and changes in transmission congestion costs. These values were estimated for the 2007 timeframe using a production cost simulation that includes a security-constrained dispatch (GEMAPS). This model produces projections of Locational Marginal Prices (LMP) that would occur in a marginal cost bid-based energy market with a security-constrained dispatch. "Benefits" of one scenario over another can depend on the point of view. The analyses principally provide comparisons of the marginal wholesale price of energy at load and generator busses for various future development scenarios involving new generation and transmission. Other impacts evaluated included selected generator energy production, production costs, loadings of selected transmission lines, and constraints that contribute to congestion cost.

This approach to regional transmission plan identification bridges the gap between generation and transmission planning that are no longer integrated functions for many electricity providers.

SECTION 1: EXECUTIVE SUMMARY

The result is identification of regional transmission expansion that may provide for a more efficient energy market in the Midwest. The design of the planned transmission system has been driven primarily by load growth, transmission service rights, and generation developments with known commitments. It is generally not designed to accommodate other possible generation development scenarios that could benefit from forward-looking transmission plans. In this first report, the MISO begins a process of evaluating specific transmission expansions that may enhance the ability of the MISO system to deliver generation supplies under various future generation development scenarios that are driven by the diverse energy resources of the Midwest.

The MISO evaluated several possible generation and transmission development scenarios. Generation scenarios were guided by stakeholder input; particularly scenarios that represent greater development of coal and renewable resources (wind) than are represented in the formal generation interconnection queue. The effects of these alternative generation development scenarios on locational marginal prices were compared under several transmission expansion configurations. Section 8 of this report provides the details of the scenarios and the results.

Market participants and regulatory authorities can compare the reductions in the wholesale marginal energy prices from the base plan for a given generation and transmission development scenario in considering whether the proposed transmission addition has value. The analysis has not at this time explicitly included consideration of the capital costs of the postulated generation and transmission additions. In some scenarios, however, the analyses indicate that reductions in marginal costs may be sufficient to more than offset capital costs, if reduced wholesale transaction costs can be passed through to consumers. For these cases, the MISO will continue to evaluate the transmission alternatives.

SECTION 1: EXECUTIVE SUMMARY

Drivers for Generation and Transmission Concepts

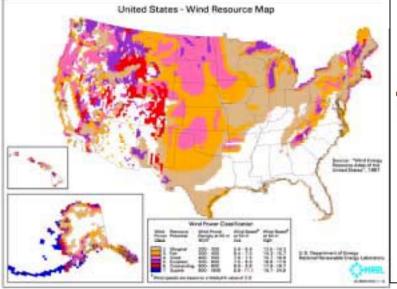
MISO considered several factors, including the following in developing regional transmission concepts for initial analyses.

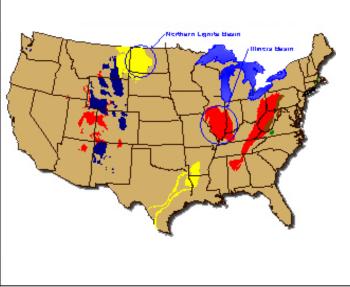
- The location of abundant supplies of coal, wind and hydro resources relative to major load centers within the MISO market area
- LMP differentials between regions in the Base Case indicating a potential for market transactions
- Constrained interfaces with the greatest contributions to congestion in the Base Case
- Input from transmission owners

Potential development plans for wind powered generation and for base-load coal-fired generation were submitted to the MISO by stakeholders. The wind plan was submitted by the American Wind Energy Association (AWEA) and Wind-On-The-Wires (WOW). The coal plan was developed in consultation with many of the utility and non-utility coal developers in the region.

AREAS OF WIND POTENTIAL IN THE UNITED STATES

MAJOR COAL BASIN OF THE UNITED STATES





SECTION 1: EXECUTIVE SUMMARY

The generation in the Base Case is representative of existing units and units in the interconnection queues of MISO and nearby systems that have executed interconnection agreements. For each of the generation scenarios developed, MISO added capacity equal to approximately 40% of the total capacity in the queues. The differences in added capacity by fuel type for each scenario is shown in the table below.

Capacity Additions to Base Case (Nameplate MW) for Various Generation Scenarios Evaluated

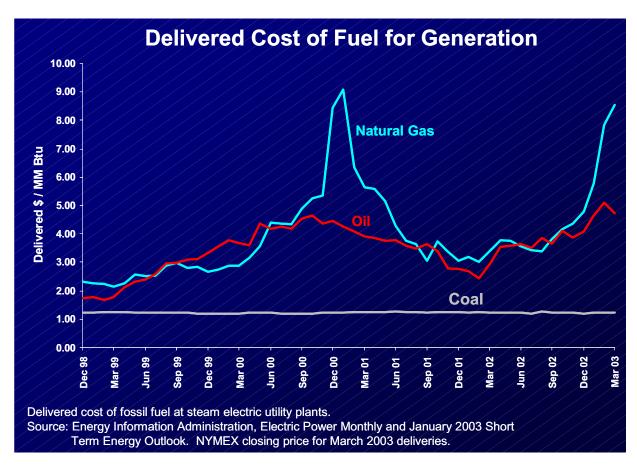
Fuel	Base Case (%)	Higher Gas (Reflects Queue - Minimal Wind)	Higher Gas (Reflects Queue - More Wind)	Balanced (More Coal)	High Wind
Coal	52.9%	3250	3250	10019	3250
Natural Gas	29.2%	35050	35050	28050	35050
Nuclear	8.8%	0	0	0	0
Hydro	3.8%	0	0	0	0
Oil	3.7%	0	0	0	0
Wind	0.34%	0	3246	0	9335
Other	1.32%.	0	0	0	0

SECTION 1: EXECUTIVE SUMMARY

The Effect of Fuel Price Changes

Many of the combined generation and transmission concepts investigated result in significant reductions in the marginal price of wholesale energy. This resulted both because of the introduction of new resources with lower marginal cost than many existing resources, and because the transmission enabled improved access to the new resources. Those scenarios that assumed higher prices for natural gas significantly influenced the results. Sensitivities to price of other fuels have not been evaluated at this time.

Recent trends in natural gas prices have shown significant volatility, as demonstrated by the five-year data below from the Energy Information Administration. MISO tested the impact of natural gas prices using a reference price of between \$3.24/mmBtu and \$3.85/mmBtu, and using a higher price of \$5/mmBtu.



SECTION 1: EXECUTIVE SUMMARY

Most Effective Transmission Concepts

MISO considered eleven separate configurations of exploratory transmission, in various combinations with differing generation development scenarios. The transmission configurations and generation scenarios considered are tabulated below. The most effective of transmission expansions explored are highlighted in blue in the transmission table below. It is important to note that these are very preliminary indications of potentially effective transmission expansions in the Midwest. Much additional economic and reliability studies would need to be completed before such plans could be definitively recommended for development.

In addition, much of the benefit found associated with the identified transmission concepts derive from the alternative generation developments that are enabled or facilitated by the transmission additions. While the transmission provides some benefits under the Base and High Gas generation scenarios, the benefits are much reduced if the alternative coal and wind generation scenarios do not develop.

Exploratory Transmission Base Plan Rockport-Paradise 765 kV & TVA 500 kV Rockport - Paradise 765 kV & S. IL & Missouri 345 kV Iowa & S. Minn. 345 kV & Dakotas 500 kV SPP 345 kV Expansion N.W. 345 kV Expansion & Dakotas 500 kV SIL & S. IN 765 kV and 345 kV System-wide 345 kV MAPP- SPP 500 kV Overlay Michigan 765 kV High Voltage Overlay (765 kV, 500 kV, 345 kV)

Generation Scenarios Base Plan High Gas Development High Coal Development High Wind Development High Wind Development All of the above with sensitivity to gas prices. Reference gas price: \$3.24-\$3.85 \$/mmBTU High gas price: \$5.00/mmBTU

Each of these scenarios is described in detail in Section 8 of this report, and the appendices include detailed technical descriptions of how the scenarios were formulated and modeled. Most of these transmission configurations resulted in lower marginal wholesale energy prices to loads when combined with generation development scenarios that included higher percentages of coal and wind generation. Transmission was added in areas where the planned system is constrained, and cannot accommodate delivery of both the new and existing resources. Not all plans, however, appeared to provide enough value to cover the estimated capital costs of the transmission plans.

SECTION 1: EXECUTIVE SUMMARY

The following pages show results of the LMP-based congestion analysis for selected combinations of transmission and generation scenarios that appear to provide the best values. The exploratory transmission plans that resulted in the best value were, as expected, those that provide for additional outlet for coal generation in southern Illinois and Kentucky, and those that provide for additional outlet for coal and wind resources in the Dakotas, Minnesota, and Iowa. These area-specific expansions were more cost effective than other more sweeping system-wide expansions in that they achieved the majority of the savings in marginal energy cost for lower amounts of transmission investment.

The area over which the marginal costs are calculated in these summary figures is a wide area that extends beyond the MISO, and includes most of the Eastern Interconnection with the exception of Texas, Florida, New York and New England. Other more targeted roll-ups of data are provided throughout this report, permitting a view of changes in marginal energy costs between scenarios for smaller areas. The summaries below include charts of percentage share of the total cost reductions by selected regions of the Eastern Interconnection.

The simulation results showed that a new 765 kV transmission line between the Rockport substation in Indiana, and the Paradise substation in Kentucky, when modeled in the High Coal development scenario could result in reduced marginal energy costs of about \$1.4 billion annually over a wide area that includes ECAR, MAIN, MAPP, SPP, Entergy, TVA, Southern Companies, MAAC, and VACAR. This compares to a high gas development case with a comparable amount of new generation capacity added to the system, and with natural gas prices at \$5.00/mmBtu. Most of these benefits (77%) are shared among consumers in ECAR, MAIN, MAPP, TVA and Southern. The cost of the transmission line is estimated at about \$294 million, with an approximate levelized annual charge on the order of \$59 million. It would seem that this difference between annual line cost and energy savings would provide for substantial savings remaining to cover the incremental capital cost to support the new coal unit investment. At the lower gas prices, the total savings are cut in half.

Similar results are seen for the second expansion shown. In this case, the Rockport-Paradise expansion is included in a more generalized area enhancement program that includes several 345 kV expansions in southern Illinois and southeastern Missouri. The 345 kV enhancements "close-up" parts of the 345 kV network in the region, and provide additional outlets for existing and new coal generation in Kentucky, Indiana, and Illinois. This series of projects would be more expensive, estimated at about \$177 million annually in transmission fixed costs. The resulting energy cost savings are even greater than in the Rockport-Paradise case, however, at about \$1.6 billion annually. Again, the energy cost benefits are spread over customers predominantly in ECAR, MAIN, TVA, Southern, and MAPP.

Another case with potentially favorable cost reductions to consumers was the development of additional 345 kV expansions in Iowa and southern Minnesota, and 500 kV in the Dakotas. This configuration was estimated at about \$155 million annually in transmission costs, with an annual energy cost savings of \$444 million for the High Wind development scenario, with higher gas prices. These savings were reduced by about 30% at the lower natural gas prices. Although these plans improved the economic dispatch of resources and resulted in lower annual marginal costs of wholesale energy in the models, the plans were clearly not optimized solutions in that

SECTION 1: EXECUTIVE SUMMARY

they did not substantially alleviate several of the significant constraints and related congestion in the area. Additional tuning of these plans to more closely address area constraints and to tie more directly to area load centers should result in more benefits than those shown for the Iowa-Minnesota concepts as configured.

A fourth transmission expansion concept that performed well was the SPP 345 kV Expansion. This concept was developed as a means of eliminating the most significant constraints found in the 2007 Base transmission case. It is not intended to imply specific routing or design of facilities. The transmission shown is one means of relieving some of the most significantly congested paths that were identified in the MTEP base generation and transmission configuration. Reliability and operational issues have not been evaluated yet for these concepts.

It is important to note that although the SPP staff participated in early development work for the MTEP, SPP staff and regional members were not a part of the development of the SPP 345 kV Expansion concept shown below. In fact, some SPP members have expressed concern that this concept is not an accurate representation of the future needs for transmission expansion in the SPP area. The MISO believes that the SPP concept is reasonable within the set of assumptions applied to this study, and provides this information to stimulate additional discussion and study of the value of these or similar ideas. Specifically, the modeled 2007 system with an LMP-based wholesale market between the MAPP area, the MAIN area, and SPP, and with the predominance of coal as a fuel in MAPP and MAIN versus gas in the SPP area, indicates opportunity for imports into SPP. The model indicated system constraints to such transfers. In addition, the wind scenarios studied by MISO did not specifically focus on the wind potential in west Kansas, and some of the transmission suggested in the SPP concept, or variations, may have merit in providing access to that wind potential. The transmission concept provides increased transfer capacity between MAPP and SPP, provides for connections between the transmission in western and eastern Kansas, and parallels constrained paths between Oklahoma and Kansas. Results indicated significant marginal energy cost savings primarily to the SPP area, under the conditions modeled.

These scenarios overall indicate the potential for substantial energy cost savings associated with transmission expansion in constrained areas, depending on generation investment decisions, and on future fuel prices. Tuning of the transmission concepts to exclude less effective aspects could yield higher benefits per dollar of transmission.

SECTION 1: EXECUTIVE SUMMARY

Exploratory Plan Rockport-Paradise 765 kV Line and TVA 500 kV

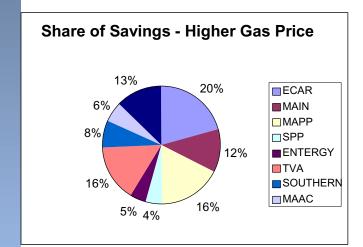
Estimated Transmission Cost (Direct 2001 Dollars): \$294 Million Estimated Annual Fixed Charge for Transmission: \$59 Million

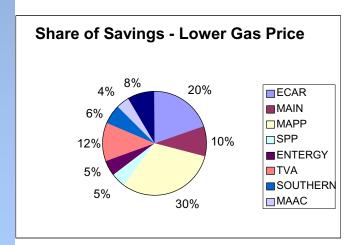
Balanced Generation Development (Higher Coal)

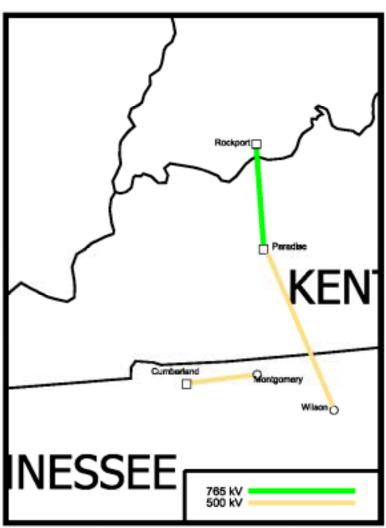
Annual Reduction In Marginal Wholesale Energy Cost As Compared to High Gas Development Case:

\$5.00/mmBtu Natural Gas: \$1,421 Million

\$3.24-\$3.85/mmBtu Natural Gas: \$670 Million







SECTION 1: EXECUTIVE SUMMARY

Exploratory Plan Rockport – Paradise 765 kV and S. IL, IN and Missouri 345 kV

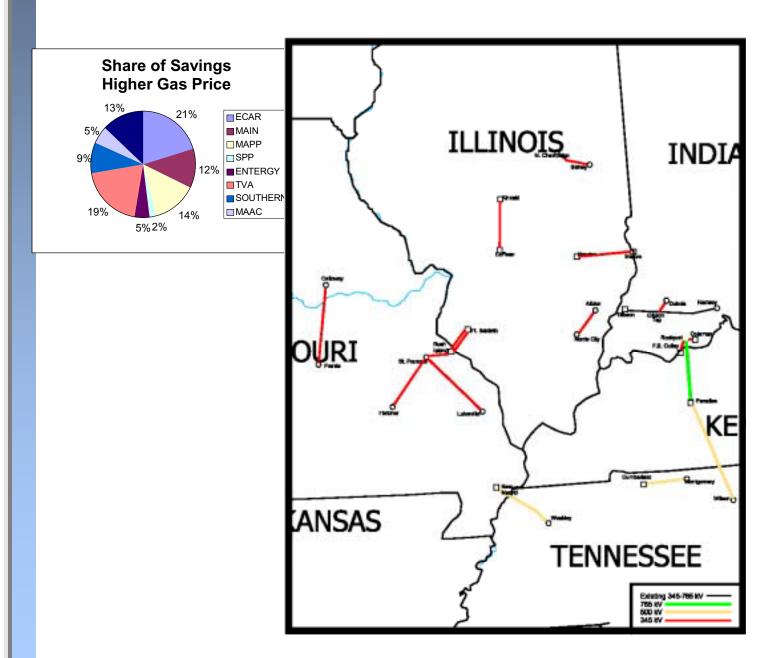
Estimated Transmission Cost (Direct 2001 Dollars): \$844 Million Estimated Annual Fixed Charge for Transmission: \$169 Million

Balanced Generation Development (Higher Coal)

Annual Reduction In Marginal Wholesale Energy Cost As Compared to High Gas Development Case:

\$5.00/mmBtu Natural Gas:

\$1,685 Million



SECTION 1: EXECUTIVE SUMMARY

Exploratory Plan lowa and S. Minn. 345 kV and Dakotas 500 kV

Estimated Transmission Cost (Direct 2001 Dollars): \$667 Million Estimated Annual Fixed Charge for Transmission: \$132 Million

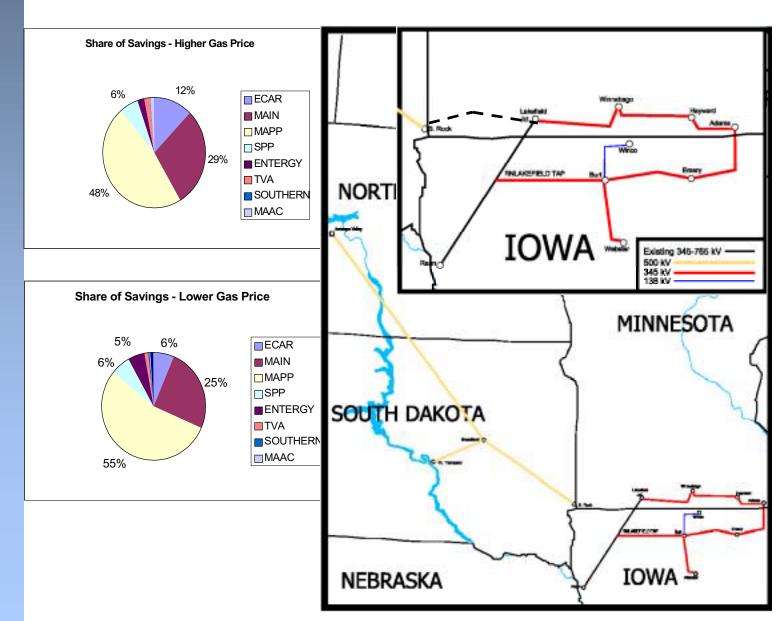
High Wind Generation Development

Annual Reduction In Marginal Wholesale Energy Cost As Compared to High Gas Development Case:

\$5.00/mmBtu Natural Gas: \$444 Million

\$3.24-\$3.85/mmBtu Natural Gas:

\$304 Million



SECTION 1: EXECUTIVE SUMMARY

Exploratory Plan SPP 345 kV Expansion

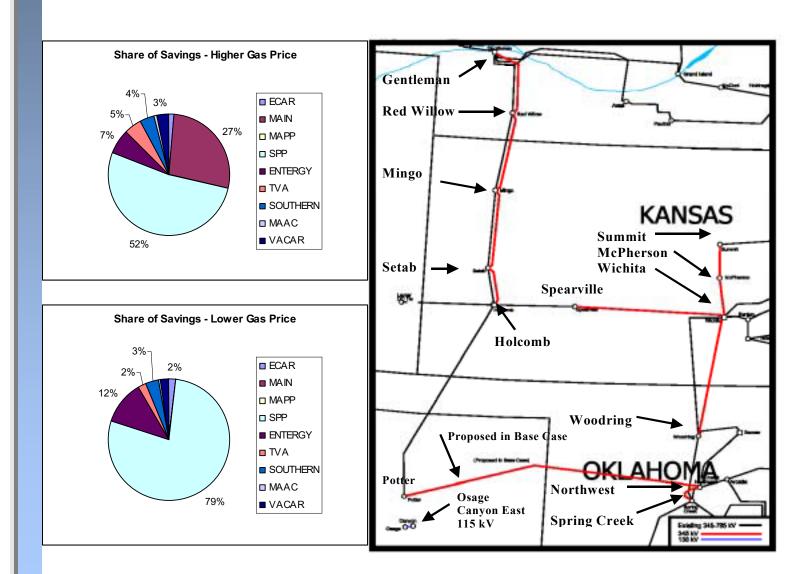
Estimated Transmission Cost (Direct 2001 Dollars): \$503 Million Estimated Annual Fixed Charge for Transmission: \$101 Million

Base Generation Development

Annual Reduction In Marginal Wholesale Energy Cost As Compared to Base Transmission Case:

\$5.00/mmBtu Natural Gas: \$517 Million

\$3.24-\$3.85/mmBtu Natural Gas: \$259 Million



SECTION 1: EXECUTIVE SUMMARY

1.5 Continuing Plan Development

This initial expansion plan report of the MISO is being issued approximately eighteen months after MISO began initial operations in February 2002. It is the intention of the MISO to issue a full planning report at least biennially, with interim year updates. The next phase of the expansion plan will focus more directly on an independent baseline reliability assessment that will provide an RTO-wide view of the reliability performance of the system that is being planned collectively but not on a regional basis by the Transmission Owners. In parallel with that effort, MISO will continue to refine the congestion analyses begun with this report, in an effort to provide market participants with ongoing economic information that will guide their investment decisions. The MISO looks forward to working closely with the newly formed Midwest Multi-State Committee to provide additional information of value to the states.